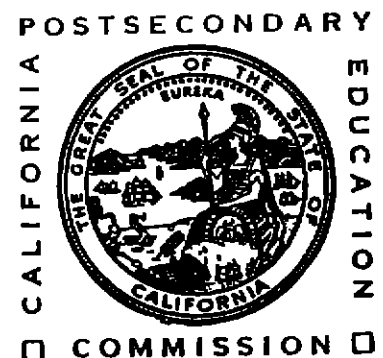


# FINAL REPORT ON THE EFFECTIVENESS OF INTERSEGMENTAL STUDENT PREPARATION PROGRAMS

*The Third Report to the Legislature  
in Response to Item 6420-0011-001  
of the 1988-89 Budget Act*

**CALIFORNIA POSTSECONDARY EDUCATION COMMISSION**  
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**COMMISSION REPORT 92-1  
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# Overview, Conclusions, and Recommendations

## Origins of the report

In *The Role of the Postsecondary Education Commission in Achieving Educational Equity: A Declaration of Policy*, which the Commission published in December 1988, the Commission presented this vision of the California's future

The Commission envisions a California of tomorrow as one in which the characteristics of Californians -- ethnicity, race, language, socioeconomic status, gender, and home community -- do not determine educational accomplishments and achievements. This vision is one in which all Californians have an expanded opportunity to develop their talents and skills to the fullest, for both individual and collective benefit.

The Commission emphasized the importance of California's educational system and of collaboration among all sectors of this system in achieving this vision by recognizing the "essential dependence on elementary and secondary schools to prepare students for higher education and the responsibility of postsecondary education to cooperate with schools in this effort."

Concomitant to the Commission's issuance of this declaration, through Supplemental Language to the 1988-89 Budget Act, the Governor and Legislature directed the Commission to

develop and implement a strategy to assess the impact of intersegmental programs designed to improve the preparation of secondary school students for college and university study. The purposes of the report shall be to identify those programs and institutional activities which are successful and to recommend priorities for future state funding to improve student preparation.

Responding to this directive, the Commission has engaged in a three-year assessment of nine inter-

segmental programs designed to improve the preparation for college-level work of secondary school students from backgrounds historically underrepresented in postsecondary education -- a study consistent with its view of the importance of collaborative strategies designed to link the secondary and postsecondary sectors in achieving educational equity.

The Commission selected the nine programs for participation in the study on the basis of common characteristics, including

- A goal of increasing the total number of students who are prepared for college rather than recruiting students to a particular institution or campus,
- An emphasis on student participants who are from racial, ethnic, or socioeconomic backgrounds that are historically underrepresented in postsecondary education,
- A partnership between public schools and postsecondary institutions,
- A central administrative structure along with flexibility to allow projects within the program to address regional or local needs, and
- Programmatic strategies that are student-centered or have major student-centered components.

The programs that have participated throughout the study are

- 1 Alliance for Collaborative Change in Education in School Systems (ACCESS) -- a partnership between the Oakland and San Francisco school districts and the University of California, Berkeley,
- 2 California Academic Partnership Program (CAPP) -- a program involving 15 school districts, 15 public college and university campuses, and two independent colleges and universities, organized into ten local projects and administered by the California State University,

- 3 California Student Opportunity and Access Program (Cal-SOAP) -- a program administered by the California Student Aid Commission that involves 35 school districts, 45 public college and university campuses, and 14 independent colleges and universities, organized into six regional consortia,
- 4 College Admissions Test Preparation Program/Advancement Via Individual Determination Program (CATPP/AVID) -- a project involving the San Diego County Office of Education and local colleges and universities, and the remaining project of the College Admissions Test Preparation or "Tanner" Program, which at one time involved 11 school districts,
- 5 College Readiness Program (CRP) -- a program involving 10 school districts and five State University campuses, administered jointly by the California Department of Education and the State University,
- 6 Early Academic Outreach Program (EAOP) -- a program involving 176 school districts and the eight general campuses of the University of California, administered through the Office of the President of the University,
- 7 Mathematics, Engineering, Science Achievement (MESA) -- a program involving 73 school districts, the State's two public universities, and four independent colleges and universities, with statewide offices at the University of California, Berkeley,
- 8 Middle College (MC) -- a program administered by the Chancellor's Office of the California Community Colleges that involves the Los Angeles and Richmond Unified School Districts and two local community colleges, and
- 9 University and College Opportunities (UCO) Program -- a program administered by the California Department of Education involving 10 school districts and their local colleges and universities

The first report from this study, which the Commission published in October 1989, was primarily descriptive in that it described the philosophy, goals, services, resources, and operations of the programs. For those programs that showed evidence of effective-

ness at that early time in the study, the Commission concluded preliminarily that

participation in these programs is associated with enhanced levels of preparation for college, as measured by course completion patterns, college admissions test performance, classroom achievement, and college-going rates

In the second report from the study, published by the Commission in October 1990, the Commission offered three major conclusions -- again preliminary in nature

- The programs have demonstrated their efficacy to enhance the preparation for college of students from Black, Latino, Native American, rural, and low-income backgrounds -- those groups who historically have been underrepresented in post-secondary education,
- Resources in the programs are spent efficiently, and
- The programs point to effective strategies that should be incorporated into the operation of every school

The purposes of this final report are thus to examine further these preliminary conclusions and be in a position to offer recommendations about three issues

- 1 The effectiveness of each of the programs included in this study,
- 2 The contribution of this collectivity of programs in achieving statewide educational equity goals as prescribed in Assembly Concurrent Resolution 83 (Chacon, 1984) and as outlined in the Commission's declaration on educational equity referred to above, and
- 3 Specific components of the programs that contribute to student academic achievement

#### **The study's advisory committee**

In the early stages of this study, the Commission formed an advisory committee composed of system-wide office representatives, statewide intersegmental program managers, and project directors that consisted of

- Michael Aldaco, Student Academic Services, University of California,
- Valerie Bordeaux, University Outreach and School Relations, California State University, Long Beach,
- Barbara Brandes, High School Education Office, California Department of Education,
- Deborah Daniels-Smith, SUCCESS Consortium, Solano California Student Opportunity and Access Program,
- Rosa DeAnda, Academic Affairs, California Community Colleges,
- Fred Easter, Mathematics, Engineering, Science Achievement Program, University of California,
- Terry Emmett, Program Evaluation and Research, California Department of Education,
- Yolanda Garcia, Educational Opportunity Program, University of California, Santa Barbara,
- Deborah Osen Hancock, then with the California Academic Partnership Program, California State University,
- William J Moore, then with the Association of Independent California Colleges and Universities,
- Daniel Parker, Public Information Unit, California Student Aid Commission,
- Louis Schell, Alliance for Collaborative Change in Education in School Systems, University of California, Berkeley,
- Patricia Wainwright, President's Office, Los Angeles Southwest College,
- Peter White, Student Services, California Community Colleges,
- Barbara Young, Academic Affairs, California State University, and
- Frank Young, Academic Affairs, California State University

These individuals have provided invaluable assistance to the Commission, the State, and education at large in making progress on California's educational equity agenda. Moreover, this committee exemplifies the vitality of educational collaboration

that the Commission describes in the final part of this report

### **Principles underlying the Commission's conclusions and recommendations**

The Commission bases its five conclusions and recommendations in this report on two principles

- 1 The nine intersegmental student preparation programs have as their collective goal the preparation of students for college. While students who participate in the programs may not choose to pursue a college education, this goal of the programs is relevant and appropriate for two reasons
  - Most students change their minds several times during high school about their plans after graduation. Preparing to attend college keeps all their choices and options open.
  - The skills -- both academic and attitudinal -- that students learn in preparation for college are equally requisite for success in the military, the civilian workplace, or any other avenues that they may choose to pursue after high school.
- 2 These programs were created because California's schools, like schools throughout the country, have not succeeded in educating as large a proportion of students from low-income or Black, Latino, and Native American backgrounds as those from more wealthy or other racial/ethnic backgrounds. Through the knowledge gained from these programs and the incorporation of their effective components into more schools, this situation ought to improve substantially. When that occurs, these programs will no longer be needed. In other words, a critical role for these programs is assisting to transform schools so that they can better educate students from those backgrounds and life circumstances from which an increasing proportion of California's children come. In so doing, these programs are engaged in setting the stage for their own demise. However, until this transformation is achieved, these programs are absolutely neces-

sary if California is to make progress on achieving its educational equity goals

## Conclusions and recommendations

Based on these two principles and the results of its three-year study of intersegmental student preparation programs, the Commission offers the following five conclusions and recommendations to the Governor, Legislature, representatives of the educational system, and intersegmental program managers

### **CONCLUSION 1: The programs have been so demonstrably effective that they deserve Statewide expansion.**

In the main, each program participating in this study has been demonstrably efficacious in meeting specific program objectives, whether those objectives are measured in terms of drop-out rates, college admissions test scores, classroom achievement, course completion patterns, or college-going rates

Two programs are thus far exceptions to this general conclusion

- The Middle College (MC) program has been in existence for only two years in California. As such, there is insufficient evidence of its efficacy. However, the preliminary results from the two pilot colleges indicate that, with greater longevity for both student and institutional participants and with greater resource stability, this model can be demonstrably efficacious. A better judgment about its efficacy should be forthcoming later this year, when the final evaluation report on the program is completed in late 1992
- The University and College Opportunities (UCO) Program has provided some evidence of efficacy, but its reported results are too limited and mixed to support its inclusion in this conclusion, possibly because of its amorphous structure and its lack of specifically dedicated resources

Despite these exceptions, the programs as a group are clearly efficacious in meeting their common goal of increasing the college-going rates of stu-

dents from historically underrepresented backgrounds. *Of the high school seniors who participated in these programs and graduated in 1989, 72.7 percent enrolled in a California college or university that fall, compared to only 61.1 percent of all California high school seniors -- the majority of whom were from families where college attendance is the norm. That is, 11.6 percent more program participants -- which equates to a 19.0 percent higher rate -- enrolled in college than their classmates statewide, and yet these participants came from traditionally underrepresented backgrounds.*

Similar comparisons exist between program participants and their Black, Latino, and Native American counterparts throughout the State. *In Fall 1989, 50.6 percent of these traditionally underrepresented students statewide enrolled in college, compared to the 72.7 percent of program participants. That is, 22.1 percent more program participants enrolled in college than their classmates from similar socioeconomic and racial/ethnic backgrounds -- a rate 44 percent higher than would be expected without the programs' intervention.*

The enrollment rates of program participants into baccalaureate degree-granting colleges and universities reveals even more impressive evidence of efficacy. *Of the program participants who graduated in 1989, 40.1 percent enrolled that fall in a California State University, University of California, or independent college or university campus. In contrast, only 22 percent of high school graduates statewide enrolled as freshmen on those campuses, and only about 15 percent of Black, Latino, and Native American seniors did so. Thus students in the programs sought and gained admission to these institutions at a rate over two and one-half times that of students from their same background. Clearly, then, these programs are effective at enhancing the college-going rates of their participants, especially to institutions that offer bachelor's and higher degrees.*

This evidence indicates that expansion of these programs -- while not a sufficient condition to achieving the State's educational equity goals -- is now needed if progress is to be made on realizing those goals

**RECOMMENDATION 1: The Governor and Legislature should develop state policy and provide resources to expand these programs in order to serve all students in California who,**

**because of their backgrounds and life circumstances, need these programs at this time to prepare for, and pursue, a college education.**

These programs are exemplars of Governor Wilson's notion of "preventative government" in that they function to prepare students for education beyond high school -- an ever increasing criterion for economic stability -- and a productive life upon college graduation. As such, they ought to be incorporated within the arsenal of the State's leadership approach to ensuring economic, social, technological, and political vitality in California. Further, because each of these programs has been evaluated by the Commission or an external evaluator on at least one occasion, they should be regarded by the Governor and Legislature as fully developed models appropriate to be implemented statewide, and no longer as experimental programs or laboratories continually requiring large-scale evaluative efforts.

Expanding the programs statewide will obviously require a commitment of additional resources from State, institutional, and private-sector sources. In 1990-91, total funds for these programs from all sources was \$13,092,619 -- or \$113.09 for each student served that year. Of that amount, the State expended \$7,484,573, or \$64.65 per student. This figure represented 0.04 percent of General Fund expenditures on education that year, and 0.02 percent of the total General Fund.

While all students from underrepresented backgrounds may not need to participate in these programs in order to prepare for college, the Commission estimates that some 1.08 million California secondary school students from Black, Latino, or Native American families in the low- or moderate-income range may be expected to need these programs each year to pursue a college education -- at a cost of approximately \$70 million or slightly more than 0.3 percent of the General Fund expenditures on education in 1990-91. If this number of students were increased by the addition of Asian and White students from similar socioeconomic backgrounds who, by virtue of these economic circumstances, can be expected to benefit from the services provided by these programs, the total would rise to 2.18 million students, with a cost to the General Fund of approximately \$141 million -- or nearly 0.6 percent of its total expenditures on education. Given the demonstrated efficacy and efficiency of these programs, this investment is prudent and necessary if the

State is to make substantial progress on achieving educational equity goals.

These cost figures are estimates based upon the past experiences of these programs. As such, they should be regarded as conservative projections of the resources needed to provide services for every student who needs them in order to prepare for college because of two facts:

- The demographics of the State are changing rapidly. The consequence of this shift is that there will be more students in this State from the same socioeconomic and racial-ethnic backgrounds that have tended to need the academic and motivational support provided by these programs in order to prepare for college. Moreover, more students are from monolingual families in which a language other than English is spoken in the home -- a situation that undoubtedly will require more intensive academic services in order to develop fluency with English.
- These programs receive a substantial portion of their resources from institutional and private sources. In estimating the costs to the State, the Commission has assumed that the revenues from these sources will keep pace with General Fund revenues dedicated to expanding these programs. In the present financial circumstances in which California institutions and businesses find themselves, this assumption may be overly optimistic and, therefore, the cost to the State of expansion presented above may be an underestimate.

These programs can be expanded by several means in order to serve every Californian needing them to prepare for college. The following specific recommendations build upon the first general recommendation with respect to expansion in terms of students, schools, geographical regions, program components, and grade levels.

#### *1.1 Expansion of student participants*

At present, because of resource constraints, the programs in this study select their participants from a pool of students eligible for services. Often, considerably more students at a school are eligible than can be accommodated in the program. With only 72,000 students participating in the programs -- 3.6 percent of the secondary students in the State and less than 9.0 percent of the Black, Latino, and Na-

tive American students in secondary schools in the State -- the most efficient and expeditious way for these programs to expand is to serve all students eligible for participation on the basis of programmatic guidelines at the schools presently involved in the program

**RECOMMENDATION 1.1: The Governor and Legislature should provide resources in order to expand the number of students served in the schools now participating in the programs.**

### *1 2 Expansion of school participants*

Only 720 schools in California currently participate in these programs -- over 99 percent of them secondary schools. With nearly 13,000 schools in the State and with each new class composed of a larger proportion of students from historically underrepresented backgrounds, the number of schools presently served by this program is woefully inadequate if the State is to make progress in achieving its educational equity goals. At a minimum, all secondary schools with at least 40 percent of their student body composed of pupils from Black, Latino, and Native American communities -- the proportion identified in Assembly Bill 3237 (Chacon, 1990) directing each program to develop an expansion plan -- should participate in one of these programs. As of the 1990 school census, 987 middle, junior, and senior high schools satisfy that criteria, or 37 percent more sites than presently participate in these programs.

**RECOMMENDATION 1.2: The Governor and Legislature should provide resources in order to expand the number of schools served by these programs.**

While the importance of expanding the number of schools served by these programs is crucial, this specific recommendation is offered only in conjunction with Recommendation 2 below. That is, expansion to serve additional schools must be planned by the programs -- acting in concert -- within a statewide context in order to utilize State resources most efficiently and avoid unnecessary duplication of services. Commission staff, in conjunction with the intersegmental program managers, will coordinate the development of a statewide implementation plan pursuant to Assembly Bill 3237.

### *1 3 Expansion of geographical areas*

Rural schools who educate a large proportion of students from families considered low-income are underserved by these programs. The reason for this problem is primarily logistical, in that these schools are often some distance from host campuses, and providing services to them would likely increase travel and personnel costs. Among the alternatives that programs should consider in order to serve rural areas are the establishment of satellite offices, training of school-based personnel, and reconsideration of the schools that they are presently serving.

**RECOMMENDATION 1.3: The Governor and Legislature should specify that expansion to serve rural areas is a high State priority and encourage State managers of these programs to develop innovative ways to serve these locations.**

### *1 4 Expansion of program components*

The analyses in Part Six of this report provides evidence of a relationship between increased student academic achievement and of summer residential experiences and intensive academic activities, such as tutoring and skill development classes, during the school year. The intensiveness of a residential experience coupled with its first-hand and personal nature may account for its impact on student performance. On the other hand, the consistent and continual exposure to tutoring and specialized classroom instruction within the everyday school setting appears to have a similar relationship to course achievement.

**RECOMMENDATION 1.4: The Governor and Legislature should encourage State managers of these programs to expand or initiate residential summer activities and intensive academic services during the school year and provide the resources for such expansion.**

Specifically, four of the programs -- the California Student Opportunity and Access Program (Cal-SOAP), College Admissions Test Preparation Program/Advancement Via Individual Determination (CATPP/AVID), College Readiness Program (CRP), and Middle College (MC) -- should consider incorporating a summer residential component into their operation, and three of them -- Cal-SOAP, CRP, and

the Early Academic Outreach Program (EAOP) -- should consider incorporating intensive academic activities into their design

Both of these effective components are, however, among the most labor-intensive of program activities. As such, expansion of these components will require a greater infusion of resources than can be estimated directly from present cost-per-student figures. In order for the Commission to advise State policy-makers on the resources that will be needed to implement these changes, the programs that currently have summer residential and/or intensive academic experiences during the school year should provide such information as part of the expansion plans that they are presently developing.

### *1.5 Expansion of grade levels*

Since the start of this study, the proportion of students participating in these programs who were in elementary school has risen steadily, although only 55 elementary schools presently participate in these programs. This trend recognizes the sequential nature of the educational process which requires that children acquire a foundation and appreciation for learning in the elementary school years. Moreover, efforts may be most cost effective early in the process - the notion again of preventative efforts, in that subsequent interventions can assist at the margins but may be more costly and less likely to overcome the academic and consequent psychological effects of initial negative learning experiences.

**RECOMMENDATION 1.5:** The Governor and Legislature should acknowledge that the process of preparing students for college begins at the elementary school level and formulate State policy that encourages college preparatory activities directed to that population of students.

Expanding these programs to all elementary schools in which there are large numbers of Black, Latino, and Native American students is probably not feasible. However, the possibility exists for programs, in collaboration with elementary school sites from which students matriculate to junior and middle schools that they presently serve, to develop activities that are college-preparatory in nature. These schools may need both encouragement and

assistance because the notion of "college begins in kindergarten" may be new and may appear remote to elementary school staff in that the journey from the younger grades to postsecondary education is a long one. In order to collaborate most effectively in this process, these programs should

- Identify those elementary sites that send students to the junior or middle schools already participating in the program. These participating schools have established relationships with their feeder elementary schools and the programs can capitalize on those relationships in developing collaborative activities,
- Develop a system to ensure a smooth transition of students from an elementary to secondary school which will provide continuous supplementary services to students, and
- Establish a mechanism to document the effectiveness of the activities at the elementary school level. This is particularly important because the ultimate benefits of activities at that level will not be evident -- at least in terms of measures such as college-going rates -- for many years.

**CONCLUSION 2:** The programs have clearly demonstrated their efficient use of resources.

The appropriation of State resources to this collective of programs has been efficient. There are nearly 13,000 schools statewide, of which 3,299 are secondary schools -- the focus of these programs in the past. Of that number, 720 participated in these programs in the 1990-91 year. Only 255, or less than 8 percent of the schools statewide, participated in more than one program. In those instances -- primarily in large urban high schools -- where more than one program operated at a school, the multiple programs have collaborated at the site to deliver a more comprehensive program to a larger population of students than could be served by any one program. Clearly, then, the State's scarce resources dedicated to achieving its educational equity goal of access to college is being spread throughout California in such a way as maximizes the number of schools and students who receive these services.

**RECOMMENDATION 2:** The Governor and Legislature should state their expectation that

**the educational system will continue to develop and implement strategies to ensure that State resources are spent efficiently and unnecessary duplication of services is minimized.**

To accomplish this task, communication among existing programs should be enhanced on both the statewide and local level, including on-going discussions prior to decisions by any program to change school service patterns. Moreover, representatives of the various sectors of the educational system should not consider proposing a new program to achieve the shared goals of these existing programs unless there is clear evidence that

- Existing programs lack effectiveness -- a conclusion negated by the information in this report on their present level of efficacy,
- Existing programs are unalterable in accommodating a new thrust or need,
- An identified gap is either unfilled or else incapable of being filled by these programs, and
- Consensus exists among the system's representatives and the Commission that a new effort is needed to supplement the activities and services provided by the existing programs

**CONCLUSION 3: The effective components of these programs can and should be incorporated into the operation of every school.**

Despite the contribution that these programs make to meeting the State's educational equity goals, those goals will be achieved only with the systemic enhancement of all schools' capacity to educate all California's children. While these programs have developed ways to increase the college enrollment and graduation rates of students from underrepresented groups who now constitute the majority of school-age youth in the State, they alone cannot be expected to eliminate the disparity in college enrollment and graduation rates between students from historically underrepresented backgrounds and those from communities in which college attendance is a tradition. Rather, the effective strategies that they have developed should be incorporated into the operation of every school, since they offer

the potential to enhance preparation for all California students

**RECOMMENDATION 3: The Governor and Legislature should encourage schools to incorporate in their curriculum, instruction, and counseling practices the most effective components of these programs.**

The evidence from this study indicates that a holistic approach that combines organizational, curricular, and instructional support with direct services to students is a model that the State should promote, since it has the greatest potential to result in progress toward achieving statewide educational equity goals. In particular, the following components have been identified as especially effective in enhancing student achievement

- Intensive academic enrichment experiences, such as tutoring or skill development, incorporated into the regular school day provide (1) help for students in understanding and practicing new concepts, (2) an academically oriented peer group with which students can associate, and (3) a sense of "specialness" that has been described as the Hawthorne Effect,
- The active involvement of parents as part of the process by which college aspirations are set and consequent actions developed,
- The opportunity for school faculty to collaborate with their postsecondary colleagues, which often leads to curricular and instructional innovations,
- The provision of direct services such as tutoring and skill-development classes to students that help them benefit from those curricular and instructional innovations that may emerge from the collaboration discussed above, and,
- Staff development to assist teachers and counselors incorporate curricular, pedagogical, and guidance strategies that are effective with students from various racial-ethnic backgrounds and life circumstances

In essence, this recommendation acknowledges the fact that these programs are engaged in a transformational process and that they must play a crucial transitional role in assisting schools to be environments in which students from different racial-ethnic and socioeconomic backgrounds can become

effective learners. Program staff are, and need to continue to be, involved in developing the organizational capacity and confidence of the schools to incorporate effective program components within their curricular, pedagogical, and guidance practices. Moreover, as these components are introduced and become institutionalized within the school, the role of program staff ought to move from that of direct service provider to staff developer to technical assistant or consultant. Eventually, program staff, having collaborated sufficiently with the school staff, should leave the school -- but only when the level of student achievement has improved to the extent that all students are achieving in a college preparatory course of study or that differences in achievement are not associated with the socioeconomic or racial-ethnic background of students.

#### **CONCLUSION 4: The programs should continue to be monitored.**

Monitoring the results of statewide programs is an action that should be regularized for several reasons

- Functioning as statewide laboratories, these programs have the potential to lead to knowledge that can be incorporated into the schools to enhance their effectiveness in encouraging all students to prepare for college, but especially those from populations that previously did not enroll in postsecondary institutions,
- This new knowledge can be reintegrated to enhance these programs' efficacy, and
- The political reality that, because these are discretionary programs, they will be subjected to continued scrutiny with respect to future allocation of State resources

**RECOMMENDATION 4: The California Postsecondary Education Commission, in consultation with representatives of the educational system and managers of statewide programs, should develop and implement a process to monitor programs on a regular and longitudinal basis. A report describing the process and**

**an implementation schedule should be prepared by no later than January 1, 1993.**

This monitoring plan should regularize the review of these programs in order that the State can

- Identify effective strategies that should be incorporated into the instructional and institutional programs of all schools,
- Design strategies for disseminating information on effective models, encourage their replication, and guide prospective program managers to governmental and non-governmental sources for support,
- Support expansion with State policy-makers of those effective efforts that should serve more schools and students statewide, and
- Provide technical assistance to efforts that may be ineffective in order that they may become more effective or eliminated if positive results are not forthcoming

To this end, the information-gathering and analytic capacity of these programs should be enhanced -- a priority in the allocation of resources to these programs

#### **CONCLUSION 5: The programs exemplify collaboration as a vital approach to address educational challenges.**

A central aspect of these programs is their collaborative nature -- a general approach for addressing educational issues. The strength of this approach has been manifested in this study in at least four ways

- 1 *Resource sharing* During the 1990-91 fiscal year, participating schools, colleges, and universities contributed \$4,873,295 in their own resources to these programs, which amounted to over 37 percent of the total funds expended by the programs that year. The private sector contributed an additional \$734,751, which represented over 5.5 percent of the available funds for the programs. As such, the total resources appropriated to these programs from the State was

nearly matched -- on a dollar-for-dollar basis -- with resources from the collaborators

- 2 *Minimization of the occasions in which duplication of services occur* When educational institutions in a local area decided to collaborate, often a moving force was the desire to minimize occasions in which duplication of services might occur and optimize the expenditure of resources. In this way, a more comprehensive set of services was offered to a larger population of students at a reduced cost
- 3 *Opportunities to develop relationships across educational boundaries that enhance the flow of students from one part of the educational system to another* Better understanding of the institutional missions, prerogatives, and procedures as well as improved and regular lines of communication among representatives facilitated the movement of students along transition points in the educational system
- 4 *Extension of collaboration beyond the narrow confines of the program* Not only did individual students benefit from the activities and services implemented by these programs, but the occasion to bring together school and college personnel from various postsecondary institutions fostered a process for addressing myriad educational challenges in addition to focusing on specific program implementation. Indeed, the opportunity to encourage this spirit through regular meetings and development of collaborative activities may be one of the most powerful and lasting legacies of these programs

**RECOMMENDATION 5: The Governor and Legislature should develop State policy that encourages and supports the educational system in initiating and continuing to develop and implement collaborative approaches to the educational challenges facing California.**

In its 1988 policy statement on educational equity, the Commission expressed its view that "the development of an educational system that is structured as an integrated and articulated continuum through which students flow from kindergarten to postsecondary training" is essential to the achievement of educational equity. From that viewpoint, collaboration throughout that continuum is the

most appropriate and potentially effective implementation strategy

This recommendation is not a call for new programs whose goals are similar to those in this study. Rather, the Commission recommends that, whenever possible and appropriate, the State ought to support a collaborative approach for meeting challenges rather than a strategy that is designed and implemented by a single sector of the educational system functioning in isolation from others. Moreover, the involvement of independent colleges and universities in collaborative efforts is not only consistent with recommendations from the Commission on the Review of the Master Plan for Higher Education but is essential if California is to be maximally efficient in terms of resources -- both personnel and manpower -- and effective in achieving its goals, particularly with respect to educational equity.

State policy-makers should offer financial incentives sensitive to the nature of this strategy that will serve to promote and maintain collaborative efforts. Specific recommendations with respect to the financing of these programs will be offered in the Commission's response to the expansion plans that the programs included in this study are developing pursuant to Assembly Bill 3237 (Chacon 3237, 1990) -- a topic of the next section of this part.

### **Future directions**

This report completes the analytic process in which the Commission was directed to engage in the 1988-89 Budget Act. However, the Commission anticipates that its activities with respect to these collaborative programs will continue in the future. Specifically, the Commission expects to

- Develop a process to regularize the State's monitoring of programs designed to achieve the access portion of the State's educational equity goals, as discussed in Recommendation 4 above, and
- Review and comment on the expansion plans prepared by these collaborative programs in response to Assembly Bill 3237. This legislation directs the statewide offices to "develop a strategy to expand intersegmental programs for which they have administrative responsibility and for which there is evidence of success in improving

college preparation of students historically underrepresented in postsecondary education." These reports are scheduled to be submitted by March 15, 1992. In addition to commenting on each of the plans submitted, the Commission intends to utilize the analyses from this study to (1) discuss the current State strategy for funding the programs, with recommendations for change in that strategy, if appropriate, and (2) review the program plans in a statewide context in order to advise the Governor and Legislature on issues discussed above, including geographic balance, grade-level considerations, and efficiency with respect to minimizing the opportunities for duplication of services to occur. In this review, the Commission, in conjunction with representatives of the educational system and intersegmental student preparation program managers, expects to develop an implementation plan for the recommendations contained in this report.

## Summary

This Commission study has wed two significant issues to which the Commission has devoted substantial time in the last decade: educational equity and collaboration. The purpose of these intersegmental programs is to prepare for college those students who historically have not pursued postsecondary education, while their approach to accomplish this end is collaboration across the sector boundaries of the educational system. While certainly not suffi-

cient to achieve these goals alone, these collaborative efforts have been demonstrably effective in enhancing the college-going rates of program participants, and they have functioned as laboratories for experimenting with activities and services that can be incorporated into virtually all schools so that their level of success in educating students from these backgrounds is heightened -- both a necessary and sufficient condition for achieving educational equity. When this occurs, these programs will be obsolete -- a circumstance that will attest to their ultimate effectiveness and success.

In this report, the Commission presents the conceptual and analytical sides of these programs. Much more difficult to express is their human dimension and the impact that these programs have on young people and their aspirations. Veronica Valencia of Rio Linda High School, the Latino and prospective first-generation college student that Governor Wilson referred to throughout his 1992 "State of the State" address to illustrate the importance of education to California's future, has been a participant in one of these programs. Her decision to pursue a college education, despite myriad obstacles, and her preparation for that goal was nurtured, supported, and promoted through the services that she received from an intersegmental student preparation program involving her school and the University of California campus at Davis. Veronica is a tribute to the effectiveness of these programs and they are essential at this time for students like Veronica to prepare for productive adulthood in the California of tomorrow.

## 2

## Background of the Study

THE CAPACITY of California to remain a world leader depends on an educated workforce that is technologically and scientifically sophisticated, with skills that are learned primarily through postsecondary education, but California's burgeoning populations are precisely those for whom the State's elementary and secondary school system has been least successful. Students from low-income families, particularly in rural communities, and those who are Black, Latino, or Native American, are significantly less likely than other students to be prepared for, attend, or succeed in college. As these populations continue to grow, the extent to which they contribute to California's economy will determine, in large measure, the State's fiscal health. If increasing proportions are unemployed or underutilized in the economy because of the inadequacy of California's educational system, the State's financial stability will suffer due to a decrease in the tax base and additional burdens on the State's social services.

On this basis alone, enhancing the preparation for college of all California students continues to be a primary concern and challenge to the Commission. In its 1988 policy statement on educational equity, *The Role of the Commission in Achieving Educational Equity*, the Commission described its vision for a future California:

The Commission envisions a California of tomorrow as one in which the characteristics of Californians -- ethnicity, race, language, socioeconomic status, gender, and home community -- do not determine educational accomplishments and achievements. This vision is one in which *all* Californians have an expanded opportunity to develop their talents and skills to the fullest, for both individual and collective benefit.

The Commission considers essential the development of an educational system that is structured as an integrated and articulated continuum through which students flow from kindergarten to postgraduate training and from

which students earn a quality education. Because of the nature of the educational system, the Commission shall acknowledge an essential dependence on elementary and secondary schools to prepare students for higher education and the responsibility of postsecondary education to cooperate with schools in this effort.

Governor Wilson has indicated his own concern about the adequacy of current programs. In his inaugural address he spoke to the need for developing "preventive approaches" to meet societal challenges, including illiteracy and inadequate educational preparation--approaches "wise enough to invest in children as well as infrastructure, determined to shift from the remedial to the preventive, from income maintenance to enrichment of individual potential." In his 1992 *State of the State* address, the Governor reiterated this approach and his proposed 1992-93 budget provides support for preventative services such as education and children's health.

Moreover, for the last two decades, California's Legislature has been mindful of the importance of addressing the preparation issue. Through Assembly Concurrent Resolution 151 (Hughes, 1975) and Assembly Concurrent Resolution 83 (Chacon, 1984), it established educational equity goals for the State, and through a series of bills it has funded intersegmental programs to provide direct assistance to students, particularly those from populations historically underrepresented in postsecondary education.

Over the past decade, at the request of the Legislature, the Commission has evaluated the effectiveness of several of these efforts -- in particular, the California Academic Partnership Program (CAPP), the California Student Opportunity and Access Program (Cal-SOAP), and Mathematics, Engineering, Science Achievement (MESA), primarily in their pilot, or developmental, stage. The *ad hoc* nature of the Commission's evaluations contributed to each program's longevity, but it provided little guidance to the State with respect to identifying effective

models or program components, the efficacy of the present collection of programs, or strategies for translating the lessons learned in these experimental and often small-scale efforts into statewide programs to further the achievement of the State's equity goals

### **Development of the study**

In order to incorporate the knowledge gained from California's existing intersegmental student preparation programs into the State's plan for achieving its educational equity goals, the Governor and Legislature directed the Commission in 1988 to undertake a comprehensive evaluation of all of them, as follows

In cooperation with the statewide offices of the public secondary and postsecondary institutions, the California Postsecondary Education Commission shall develop and implement a strategy to assess the impact of intersegmental programs designed to improve the preparation of secondary school students for college and university study. The purposes of the report shall be to identify those programs and institutional activities which are successful and to recommend priorities for future state funding to improve student preparation. In preparing this report, the Commission shall utilize data gathered by the statewide offices based on an evaluation framework developed cooperatively by the Commission and statewide office staff. Prior to December 1, 1988, the Commission shall prepare a list of the programs and institutional efforts to be included in this study, a statement of the specific objectives and the appropriate measures of effectiveness for each program and institutional effort to be reviewed, and a list of the data to be collected and supplied by the statewide offices to the Commission. Prior to October 1, 1989, and again the following year, the Commission shall submit a preliminary report on the relative effectiveness of these programs and efforts. Prior to October 1, 1991, the Commission shall submit a final report identifying those programs which have been most effective in achieving their objec-

tives and recommending priorities for future state funding to improve student preparation (Item 6420-0011-001, 1988-89 Budget Act)

The Commission stated its intention at the outset that this three-year study should achieve myriad purposes, including

- Evaluation of the efficacy of each program in achieving its own objectives,
- Determination of the efficiency of these collective efforts in contributing to the achievement of statewide educational equity goals,
- Identification of program components that are most effective in improving the preparation for college of secondary school students and, based on this identification, recommend to the State those components and program strategies that appear to be worthy of statewide replication, and,
- Discernment of the strengths and weaknesses that the intersegmental nature of these programs have in terms of their effectiveness

### **Preparation of reports from the study**

In order to respond to the Budget Language, the Commission embarked on a series of four reports

- 1 As a first step, in cooperation with statewide program representatives, Commission staff developed a prospectus for the study that the Commission discussed at its December 1988 meeting which identified the programs to be included, the information requested from the statewide offices, and a set of study objectives that are delineated above
- 2 In October 1989, the Commission published its *First Progress Report on the Effectiveness of Intersegmental Student Preparation Programs*, which provided a foundation for subsequent documents in this series by describing in detail the similarities and differences among the programs in terms of their implementation strategies, criteria for selection of participants, demography of their participating schools, characteristics of the students that they serve, the nature of their evaluative information and preliminary data on their efficacy in achieving their objectives

- 3 In October 1990, the Commission published its *Second Progress Report on the Effectiveness of Intersegmental Student Preparation Programs*, which focused on two further aspects of the project
    - The effectiveness of each program's components to the achievement of its objectives, and
    - The extent to which all of these programs function in an integrated and coordinated manner so that they use State resources effectively and efficiently
  - 4 This final report from the project will provide
    - Further analyses of the relationship between specific program components and student achievement,
    - A discussion of educational collaboration in California, and,
    - Recommendations to the Governor and Legislature, and educational system on intersegmental student preparation programs
- Part Three discusses the characteristics of the programs, with particular attention to substantive trends in their operations since the study's inception,
  - Part Four assesses the extent to which the programs, individually and collectively, are achieving their objectives and contributing to statewide progress toward educational equity,
  - Part Five analyzes the extent to which the State's resources allocated to these programs are distributed in a manner that achieves optimal results statewide,
  - Part Six discusses the relationship between specific program components and student achievement in order to identify the most effective and efficient strategies by which to enhance the preparation of students for college,
  - Part Seven describes the nature of past educational collaboration in California and a projection of them in the future, and,
  - Two types of appendices are included (1) a profile of the programs statewide in terms of their participating schools, and (2) copies of the reports submitted by each of the programs

#### **Organization of the remaining sections**

The remainder of this report is organized as follows

# 3

## Program Characteristics and Their Change Over Time

TO DECIDE which intersegmental programs should be included in this study, staff of the Commission agreed with knowledgeable representatives of California's systems of education to use a combination of the following six characteristics as the defining attributes for including particular programs

- **Goal** The program seeks to increase the number of students who pursue educational opportunities beyond high school rather than to recruit students to a particular system or campus
- **Collaboration** The program represents a partnership between public schools and postsecondary institutions that supplements, rather than supplants, instruction, counseling, and staff at the school site. More than one educational institution and usually several campuses from more than one system are involved in designing, managing, and implementing the program with direct participation from school staff
- **Administration** The program is administered through a central office, but its projects are regionally based and implemented to meet local needs
- **Student participants** The program may have developed initially as a pilot effort focused on enhancing preparation for and success in college of students from Black, Latino, and Native American backgrounds, but because students from low-income families of all races and ethnicities, particularly in rural communities, are historically underrepresented in postsecondary education, the program often seeks to include these students as well
- **Student-centered approach** Most of these programs are student-centered in that they seek to effect changes in student performance directly rather than by enhancing the curriculum or teaching process. As such, measures of effectiveness are primarily in terms of student performance. Two of the programs -- the Alliance for Collaborative Change in Education in School Sys-

tems (ACCESS) and the California Academic Partnership Program (CAPP) -- have student-centered components but are primarily school-based change or curricular-oriented efforts

- **Secondary-postsecondary movement** Finally, the program functions at the interface between secondary and postsecondary education rather than at transition points within postsecondary education, such as from community college to a baccalaureate degree-granting institution.

Based on those characteristics, the Commission initially identified the following ten programs for inclusion in the first report in this series (October 1989)

- 1 Alliance for Collaborative Change in Education in School Systems (ACCESS) -- administered from the University of California, Berkeley, and involving that campus and the Oakland and San Francisco public school districts,
- 2 California Academic Partnership Program (CAPP) -- administered by the Chancellor's Office of the California State University and including 15 school districts, all public systems of education and two independent colleges and universities in the State,
- 3 California Student Opportunity and Access Program (Cal-SOAP) -- administered by the California Student Aid Commission and involving 35 school districts, all public systems of education, and independent colleges and universities,
- 4 College Admissions Test Preparation Pilot Program (CATPP) -- administered by the California Department of Education and involving 11 school districts and the public university systems,
- 5 College Readiness Program (CRP) - administered by the Chancellor's Office of the California State University and the California De-

partment of Education and including 10 school districts and five State University campuses,

- 6 Early Academic Outreach (EAOP) Program -- administered by the Office of the President of the University of California and involving 176 school districts and the University's eight general campuses,
- 7 Expanded Curriculum Consultant Project -- administered by the California Department of Education and including four school districts and the public postsecondary systems,
- 8 Mathematics, Engineering, Science Achievement (MESA) -- administered from the University of California, Berkeley, and involving 73 school districts, the State's two public university systems, and four independent colleges and universities,
- 9 Middle College (MC) -- administered by the Chancellor's Office of the California Community Colleges and involving two school districts and two community colleges, and
- 10 University and College Opportunities (UCO) -- administered by the California Department of Education and involving ten school districts and public colleges and universities

Subsequent to that report, the California Department of Education asked that the seventh of these programs -- the Expanded Curriculum Consultant Project -- no longer be included in the study because it focuses more on the processes of accreditation and joint review than directly on student achievement

In addition, the legislation authorizing the fourth program -- the College Admissions Test Preparation Pilot Program (CATPP) -- expired on June 30, 1988, and thus CATPP no longer exists. The California Department of Education sought to continue State funding for CATPP through legislative action, but the Legislature never resolved the issue of the funding source for the program -- specifically whether or not to allocate funds protected by Proposition 98. Nevertheless, the San Diego County-based project, Advancement via Individual Determination (AVID) -- the largest of the CATPP projects -- continues to operate with local school district funds. This report contains descriptive and evaluative information on CATPP/AVID.

The Commission has omitted three types of programs from this report because they do not meet the six criteria listed above. Their omission relates only to their focus of activity and not to any judgment about their efficacy. These three types are.

- 1 Programs that are intersegmental in nature but not *specifically* designed to improve the preparation of secondary school students for college, although they may contribute indirectly to that goal. Among them are teacher-centered programs such as the California Subject Matter Projects under the umbrella of Senate Bill 1882 (Morgan, 1988), the federal Eisenhower Mathematics and Science State Grant Program, the New Teacher Retention in Inner City Schools program, the Teacher Institute Program, Curriculum Institutes, and college or university use of information on secondary schools for planning and implementing improved access efforts.
- 2 Programs administered by the California Department of Education and local school districts that contribute to the preparation of students for college but are not intersegmental in nature. Among them are the Demonstration Programs in Reading and Mathematics and the Performance Reports for California Schools, both implemented by the Department of Education.
- 3 Programs that function at the interface between community colleges and baccalaureate-granting institutions, such as transfer centers, "2+2+2" projects, and the Puente Program, because their focus is not specifically pre-collegiate preparation of students.

### Operation of the programs during 1990-91

In the first progress report in this series, the Commission described in detail the extensive differences among the programs in terms of their mission and operation. As the Commission indicated in that document, the programs differ in terms of their philosophy, approach to implementation, flexibility to adapt program components to meet local needs, and anticipated length of commitment to a particular school site. In this report, the Commission first summarizes in Displays 1 and 2 on pages 20-23 the major characteristics of the nine programs and the

differences among them, based on their operation this past year (1990-91), and then turns to observable trends in their operations, individually and collectively, over their entire history

In the 1990-91 year, these displays reveal that

- The programs differ in terms of longevity from the Mathematics, Engineering, Science Achievement Program (MESA) that is over 20 years old to Middle College (MC) -- not yet three years into its development
- While these programs have similar goals, the strategies that they have developed to achieve their objectives vary The Alliance for Collaborative Change in Education in Schools Systems (ACCESS) and the California Academic Partnership Program (CAPP) are the most school-based of the set, while the others primarily serve students directly As a consequence, their program components differ along corresponding lines
- Some programs conduct projects that are quite similar in terms of service components, such as the College Admissions Test Preparation Program (CATPP/AVID), the College Readiness Program (CRP), the Early Academic Outreach Program (EAOP), and Middle College (MC) while extensive differences exist among the projects comprising the other programs
- The nine programs report serving a total of 336 school districts, although that figure should not be interpreted as an unduplicated count since several of the programs serve similar configurations of districts
- The State resources appropriated to these programs during 1990-91 were \$7,484,573, or 0.02 percent of the General Fund portion of that year's State Budget and 0.04 percent of the General Fund expenditures on education
- The institutional resources that school districts and postsecondary institutions contributed to these efforts during the same year totalled \$5,093,295
- Private contributions to these intersegmental efforts amounted to \$734,751
- All in all, these three revenue sources collectively appropriated \$13,092,619 to support these programs

### *Secondary school participation in the programs during 1990-91*

Because resources are limited, the nine programs select schools in which to provide services based on four general criteria

- Willingness of the school administrator to commit the school to participate in the program,
- A large percentage of students from historically underrepresented backgrounds,
- Proximity of a school to the site administering an intersegmental project or center; and
- Judgment that the program will enhance the school's educational opportunities -- a judgment based on knowledge that the school does not participate in other student preparation programs or that the program will make more services available to students through coordination with other programs already there

Display 3 on page 24 summarizes information from the California Basic Education Data System (CBEDS) for 1990-91 on the demography of the schools served by the programs in terms of ethnic/racial composition of their student bodies, graduating classes, and college preparatory mathematics and science courses as well as estimates of the socioeconomic status of their student bodies This display indicates that

- The programs reported a total of 1,069 elementary, middle, junior, and senior high schools as participating institutions during 1990-91 Because some schools participate in more than one program, this figure is not an unduplicated count Instead, according to the analysis presented in Part Four, 720 individual schools participated in at least one of these programs this year
- The programs continue to range in size from the Early Academic Outreach Program (EAOP), which reached 543 of California's schools to the College Readiness Program (CRP) and Middle College (MC), each of which served approximately 20 schools during the year Further, the distribution of schools served by these programs varied For example, the College Readiness Program operated in only middle or junior high schools while the University and College Opportunities (UCO) Program delivered services exclusively in senior high schools

# **DISPLAY 1 Major Characteristics of the Nine Programs**

	Alliance for Collaborative Change in Education in School Systems <b>ACCESS</b>	California Academic Partnership Program <b>CAPP</b>	California Student Opportunity and Access Program <b>Cal-SOAP</b>	College Admissions Test Preparation Pilot Program <b>CATPP/AVID</b>
<b>Program Impetus/ Program Start- ing Date</b>	<b>Berkeley</b> Chancellor's initiative to strengthen capacity of neighboring secondary schools to prepare underrepresented students for college (1980).	<b>Senate Bill 813</b> (Hughes-Hart Education Reform Act of 1983) and <b>Assembly Bill 2398</b> (Hughes, 1984).	<b>Assembly Bill 507</b> (Fazio, 1978).	<b>Assembly Bill 2321</b> (Tanner, 1985) that expired June 30, 1988. The largest of the original projects, the San Diego-based <b>AVID Program</b> , continues with local funding.
<b>Program Mission*</b>	Assist schools to engage in a school-based change process leading to curriculum, instructional, and organizational reforms that strengthen their math, English, and counseling programs.	Foster partnerships between school districts, colleges, and universities to improve learning, academic preparation, and access for middle and high school students to earn baccalaureate degrees.	Improve and increase the accessibility of postsecondary education to secondary school students.	Prepare students most underrepresented in postsecondary education for eligibility to public universities and restructure the teaching methodology of the school to make college preparatory curricula accessible to most students.
<b>Program Strategies to Fulfill Mission</b>	<ul style="list-style-type: none"> <li>Coordinated staff development and technical assistance for teachers, counselors, and administrators</li> <li>Direct support for students</li> </ul>	<ul style="list-style-type: none"> <li>Offers grants to develop projects bringing together teams of faculty from schools and colleges to enhance curricular and instructional processes around academic subject areas.</li> <li>Provides services to students in order that they can benefit from these enhancements</li> </ul>	<p>Through a consortial approach requiring matching funds:</p> <ul style="list-style-type: none"> <li>Serves as a clearinghouse for educational information.</li> <li>Provides academic support for students.</li> <li>Supplements the schools' counseling function</li> </ul>	<p>Provides direct services to students in the form of:</p> <ul style="list-style-type: none"> <li>Preparation for college admissions tests</li> <li>Academic support</li> <li>Advisement</li> <li>Parent education</li> <li>Daily English class instruction</li> </ul> <p>Provides coordinated staff development and curriculum support based on the California frameworks coupled with student achievement goals</p>
<b>Program Structure</b>	<b>Adaptive to school site needs</b>	Each project developed on the basis of a local needs assessment as part of the proposal process.	Each consortium designs services on the basis of local needs	Consistent format with some adaptation to site needs.
<b>Duration at a School Site</b>	<b>Continuous</b>	<b>Generally three years</b>	<b>Continuous</b>	<b>Continuous</b>
<b>Potential Length of Time with a Student</b>	<b>Seven years (Grades 6 through 12)</b>	<b>Possibly three years, most likely two years</b>	<b>Possibly six years; most likely two or three</b>	<b>Optimally four or more years.</b>

\* Except where indicated otherwise, students referred to in program missions are those from Black, Latino, Native American,

Source California Postsecondary Education Commission staff analysis of Appendices B through I

College Readiness Program CRP	Early Academic Outreach Program EAOP	Mathematics, Engineering, Science Achievement MESA	Middle College MC	University and College Opportunities Program UCO
Address underpreparation of Black and Latino middle school students to enroll in college preparatory math and English courses (1986)	To significantly increase the low rates at which Black, Latino, and Native American students are eligible to attend the University (1975).	Concern among educators about the small number of Black and Mexican-American engineering graduates (1970).	Replication of the successful model of Middle College developed and implemented by La Guardia Community College in New York (1988)	Encourage schools to focus on preparing Black and Latino students for college (1978)
Raise interest level and competence in math and English of Black and Latino middle school students in order to enable them to qualify for college preparatory math and English courses in high school.	Assist individual students to enroll and complete a college preparatory course of study leading to eligibility for the University.	To develop academic and leadership skills, raise educational expectations, and instill confidence in students from backgrounds historically underrepresented in Engineering, Physical Science, and other math-based fields in order to increase the number of these students who graduate with a baccalaureate degree.	Reduce the number of high-risk students with college potential who leave secondary school without a diploma.	Authorizes local initiatives to improve access to postsecondary education for students from under-represented backgrounds.
Employs college students to serve as educational interns to assist students on a small-group basis to master mathematics and English skills and enhance motivation for college on the part of students and parents.	Strengthens the knowledge about, and motivation and preparation for, postsecondary education through individual and group activities with students, parents and schools	With substantial support from the private sector, provides a set of student-centered activities designed to motivate and prepare students for math-based fields.	Through contributions from both participants, the college merges strengths from both institutions by its location on a community college campus with instruction by school district faculty.	Coordinates resources at school sites to provide direct services to students.
Programs are generally similar across the State	Program structure is generally the same across University of California campuses.	Centers adapt to meet local needs, although the components are similar.	The structure at each site will be a replica of the La Guardia model	Each project adapts to meet local needs.
Continuous.	Continuous.	Continuous.	Continuous.	Continuous
Possibly three years; most likely two years.	Possibly six years (Grades 7 through 12).	Possibly six years (Grades 7 through 12).	Three to four years.	Possibly six years (Grades 7 through 12); likely 3 years.

and low-income backgrounds

## DISPLAY 2    *Operation of the Nine Programs During 1990-91*

	Alliance for Collaborative Change in Education in School Systems <b>ACCESS</b>	California Academic Partnership Program <b>CAPP</b>	California Student Opportunity and Access Program <b>Cal-SOAP</b>	College Admissions Test Preparation Pilot Program <b>CATPP/AVID</b>
Administrative Agency	University of California, Berkeley	The California State University, with ad- vice from a Statewide Intersegmental Advi- sory Board	California Student Aid Commission, with ad- vice from a Statewide In- tersegmental Advisory Board and local advisory boards for each project.	Originally, California De- partment of Education, but statutory authority ex- pired on June 30, 1988. AVID continues under the sponsorship of the San Diego County Office of Education and cooperat- ing school districts.
Institutional Participants	Oakland and San Fran- cisco school districts; University of California, Berkeley	15 school districts; 6 CCC campuses; 6 CSU campuses; 3 UC campuses, and 2 independent insitu- tions represented in 10 local projects	35 school districts; 25 CCC campuses; 13 CSU campuses; 7 UC campuses; and 14 independent institutions represented in six local consortia.	13 school districts; 1 CSU campus; and 1 UC campus.
Program Objectives*	To strengthen school ca- pacity to prepare stu- dents for college as indi- cated by improvements in: A-F course comple- tion and college eligibil- ity rates; performance on standardized tests; curriculum, instruction, standards, counseling, expectations, leader- ship, and school organi- zation	To improve secondary school curriculum and the ability of students to benefit from these improvements. (The voluntary assessment program component of CAPP will not be includ- ed in this study be- cause its goals are not specifically student- centered).	To improve the flow of information about post- secondary educational opportunities in order to increase enrollment in postsecondary edu- cation.  To raise the achieve- ment levels in order to increase enrollment in postsecondary educa- tion.	To provide training to teachers in methodologies that help students succeed in a more rigorous cur- riculum;  To improve participation in college preparatory courses; and  To increase the number of students who enroll in postsecondary education
Service Components	Site-based staff development and technical assistance in curriculum planning and development, assessment, counseling, and school organization  Direct student support, tutoring, academic/col- lege advising, in-class instruction	Advisement. Articulation. Campus visits. Curriculum development and implementation. Parent involvement. Summer programs Teacher in-service Tutoring.	Advisement. Assistance with the college application process. Campus visits Skill development classes. Summer residential programs Test preparation workshops. Tutoring.	Assistance with college admissions test-taking and college admissions process. Counseling. Instruction in notetaking, time management, re- search skills, and study skills Motivational activities. Staff Development. Tutoring. Other support services.
Resources				
State	\$0	\$941,900	\$577,000	\$0
Institutional	\$1,300,000	\$1,186,468	\$1,020,523	\$220,000
Private	\$0	\$34,532	\$0	\$0
Total	\$1,300,000	\$2,162,900	\$1,597,523	\$270,000

\* Except where indicated otherwise, students referred to in program objectives are those from Black, Latino, and Native Ameri-

\*\* In addition, the California Department of Education provided \$133,646 for CRP, which has been omitted from this display for the sake of maintaining consistency throughout this series of reports.

<b>College Readiness Program CRP</b>	<b>Early Academic Outreach Program EAOP</b>	<b>Mathematics, Engineering, Science Achievement MESA</b>	<b>Middle College MC</b>	<b>University and College Opportunities Program UCO</b>
<b>The California State University and the California Department of Education.</b>	<b>University of California.</b>	<b>University of California, Berkeley, with advice from a statewide intersegmental advisory board and local advisory boards for each center.</b>	<b>California Community Colleges' Chancellor's Office</b>	<b>California Department of Education.</b>
<b>10 school districts; 5 CSU campuses.</b>	<b>176 school districts; 8 UC campuses.</b>	<b>73 school districts; 12 CSU campuses; 2 UC campuses; and 4 independent institutions represented in 20 project centers.</b>	<b>Los Angeles and Richmond Unified School Districts; Contra Costa College and Los Angeles Southwest College.</b>	<b>10 school districts; Local colleges and universities.</b>
<b>To increase enrollment of Black and Latino students in the ninth grade in algebra and college preparatory English courses. To improve student preparation and parent motivation and awareness of college</b>	<b>To increase the pool of students who meet the University of California's admissions requirements</b>	<b>To increase the number of students from historically underrepresented backgrounds in math-based fields in college.</b>	<b>To increase the number of high risk students who earn high school diplomas. To increase the number of high risk students who attend college</b>	<b>To improve the preparation of elementary and secondary school students for participation in postsecondary education. To improve participation of Black and Latino students in college.</b>
<b>CSU campus visits CSU interns provide academic assistance in math and English Parental activities. Problem-solving instruction. Workshops on college attendance and financial aid.</b>	<b>Academic skills development. Administrative/Programmatic linkages between schools and the University. Information dissemination. Motivational development. Participant identification and referral.</b>	<b>Campus visits. Motivational speeches by individuals from the private sector and postsecondary educational institutions. Participation in science fairs Skill development classes Tutoring. Visits to business and industry.</b>	<b>Academic, Career, and Personal Counseling Career Internship experience. Classroom instruction. Staff development. Tutoring.</b>	<b>Academic support. Career advisement. College advisement. Parent involvement. Staff development.</b>
<b>\$414,910 \$101,407 \$0 \$516,317 **</b>	<b>\$3,728,534 \$959,992 NR \$4,686,526</b>	<b>\$1,514,329 \$304,905 \$700,319 \$2,519,353</b>	<b>\$310,000 \$0 \$0 \$310,000</b>	<b>\$0 NR \$0 NR</b>

can, rural, and low-income backgrounds

NR. No Response

Source California Postsecondary Education Commission analysis of Appendices B through J

**DISPLAY 3 Characteristics of the Secondary Schools Participating in the Nine Programs During 1990-91**

	ACCESS	CAPP	Cal-SOAP	CATPP/AVID	CRP	EAOP	MESA	Middle College	UCO
<b>Total Number of Schools*</b>	<b>25</b>	<b>30</b>	<b>96</b>	<b>58</b>	<b>21</b>	<b>543</b>	<b>240</b>	<b>20</b>	<b>36</b>
Elementary	0	2	2	0	0	29	26	0	0
Middle/Junior High	22	8	22	18	21	211	86	11	0
Senior High	3	20	72	40	0	303	128	9	36
<b>Total 1990-91 School Enrollment</b>	<b>20,100</b>	<b>52,370</b>	<b>135,901</b>	<b>87,909</b>	<b>23,280</b>	<b>734,241</b>	<b>359,975</b>	<b>31,857</b>	<b>65,141</b>
Percent Asian	22.3%	11.4%	12.6%	14.4%	7.1%	12.5%	12.8%	8.1%	23.8%
Percent Black	47.3%	11.0%	17.5%	9.8%	21.8%	13.3%	16.0%	43.0%	22.6%
Percent Latino	23.0%	53.6%	31.4%	32.6%	61.3%	42.4%	46.5%	37.2%	31.0%
Percent Native American	0.4%	0.9%	0.6%	0.7%	0.4%	0.6%	0.7%	0.2%	1.0%
Percent White	7.1%	23.1%	37.9%	42.7%	9.5%	31.2%	34.0%	11.5%	21.5%
<b>Total 1989-90 Graduating Class</b>	<b>763</b>	<b>6,738</b>	<b>22,404</b>	<b>14,073</b>	<b>NA</b>	<b>90,473</b>	<b>43,864</b>	<b>2,755</b>	<b>10,910</b>
Percent Asian	18.6%	17.3%	14.3%	15.0%	NA	16.5%	16.8%	12.2%	27.4%
Percent Black	62.4%	11.2%	15.6%	8.5%	NA	12.5%	14.2%	46.5%	22.5%
Percent Latino	17.6%	36.5%	22.7%	23.5%	NA	30.8%	37.9%	23.0%	23.5%
Percent Native American	0.1%	1.3%	0.5%	0.4%	NA	0.6%	0.6%	0.2%	0.8%
Percent White	1.3%	33.7%	46.9%	52.6%	NA	39.6%	30.4%	18.1%	25.9%
<b>Total 1989-90 Graduates with College Preparatory "A-F" Courses</b>	<b>267</b>	<b>2,005</b>	<b>6,870</b>	<b>4,855</b>	<b>NA</b>	<b>30,426</b>	<b>14,585</b>	<b>995</b>	<b>3,485</b>
Percent Asian	20.2%	24.8%	18.6%	19.1%	NA	23.8%	26.4%	19.4%	37.5%
Percent Black	47.2%	7.7%	13.3%	7.6%	NA	10.5%	12.8%	43.6%	18.4%
Percent Latino	30.7%	27.8%	15.6%	15.9%	NA	20.7%	26.3%	21.2%	17.1%
Percent Native American	0.0%	0.9%	0.9%	0.5%	NA	0.5%	0.4%	0.2%	0.3%
Percent White	1.9%	38.8%	52.2%	57.1%	NA	44.5%	34.2%	15.6%	26.7%
<b>Total Enrollment in College Preparatory Mathematics Courses</b>	<b>1,746</b>	<b>2,524</b>	<b>11,430</b>	<b>7,233</b>	<b>NA</b>	<b>37,712</b>	<b>18,817</b>	<b>895</b>	<b>5,782</b>
Percent Asian	22.3%	32.7%	29.9%	28.5%	NA	33.5%	36.4%	23.5%	50.7%
Percent Black	56.2%	6.0%	9.7%	4.8%	NA	7.3%	9.2%	35.8%	12.0%
Percent Latino	18.2%	17.7%	10.9%	11.5%	NA	17.3%	21.1%	22.5%	13.6%
Percent Native American	0.3%	0.8%	0.4%	0.5%	NA	0.4%	0.4%	0.0%	0.4%
Percent White	2.9%	42.7%	49.0%	54.7%	NA	41.5%	32.9%	18.3%	23.3%
<b>Socioeconomic Status</b>									
Mean Parental Educational Level**	2.66	2.54	2.98	2.99	2.12	2.68	2.55	2.60	2.70
Percent of Students on AFDC	38.9%	14.8%	15.3%	NA	23.9%	17.6%	20.0%	39.8%	29.4%

\* School level as determined by California Basic Educational Database System (CBEDS). Normally, elementary school includes Grades 1-6, middle or junior high school includes grades 7-8, and, possibly, 9, senior high school includes Grades 10-12 and may include ninth grade

\*\*1 Non-High School Graduate, 2 High School Graduate, 3 Some College, 4 Bachelor's Degree, 5 Advanced Degree

Source: California Postsecondary Education Commission, from California Basic Educational Database System (CBEDS)

- The programs operate at schools in which the majority of the student populations are from backgrounds historically underrepresented in postsecondary education. This finding is not surprising, given program goals, and it demonstrates the effectiveness of the school selection process developed by the programs. However, there is less evidence that low-income students from rural backgrounds are being served by these programs, except through the California Academic Partnership Program (CAPP) in which four of the nine projects are located in rural counties.
- Information from each program confirms other statewide data that, without special intervention, Black, Latino, and Native American students are proportionally less likely to graduate, enroll in a college-preparatory course sequence, or enroll in advanced mathematics classes than their Asian and White classmates.
- The educational attainment of the parents of students in the programs is remarkably similar across programs. In general, almost half of the parents have never enrolled in college, let alone graduated. As such, nearly half of these students, if they go to college, will be in the first generation in their families to pursue higher education.
- The participating schools vary considerably in the socioeconomic level of their students, as based on the proportion from homes that receive Aid to Families with Dependent Children (AFDC) funds. Those schools that participate in Middle College and the Alliance for Collaborative Change in Education in School Systems -- the two programs that function exclusively in major urban centers -- have the highest percentage of students receiving AFDC funds -- approximately 39 percent. In comparison, programs that are larger and more statewide in scope function in schools where between 14.8 and 29.4 percent of the students receive AFDC funds. In contrast, only 6.5 percent of California's families receive AFDC, indicating that significantly more students at participating schools are from families on public assistance than students in general. Finally, in addition to having limited income, there is only one parent in the overwhelming majority of the households of students in the programs -- a dou-

ble impediment for the educational development of these youth.

#### *Student participation in the programs during 1989-90*

Data on the number of students involved in the programs during 1990-91 are not yet available, and thus Display 4 on pages 26 and 27 and its analysis are based on 1989-90 information. Display 4 shows that

- The total number of participants reported by the nine programs during 1989-90 was 117,971. However, there are instances in which students are counted more than once in this figure, since they may participate in activities of more than one program, although the nature of these activities differ among the programs. Based on information from Part Five of this report regarding the distribution statewide of these programs and Appendix A, approximately 72,000 individual students participated in these nine programs in 1989-90 -- or 3.6 percent of the seventh to twelfth graders attending public schools in the State and 8.8 percent of the seventh to twelfth graders who are Black, Latino, or Native American.\*
- Women continue to constitute the majority of participants in all programs except for the Alliance for Collaborative Change in Education in School Systems (ACCESS) and the California Student Opportunity and Access Program (Cal-SOAP), but the ratio of women to men participants remained relatively unchanged from the last year.
- In the first year of the study, the Commission was unable to describe the socioeconomic status of students in the programs, but Display 4 presents at least limited data on their socioeconomic circumstances. This information should be viewed as representing only a cursory estimate in light of the following caveats:

\* Because the Early Academic Outreach Program (EAOP) is the largest of the nine programs, its 51,693 students served as a base for this unduplicated estimate. Other programs were examined to determine if they were serving students in grade levels, school districts, and schools outside of the present scope of EAOP. On this basis, approximately 20,359 students were added, for a total unduplicated count of 72,052 students who participated in these programs during the 1989-90 school year.

**DISPLAY 4 Characteristics of the Students in the Nine Programs in 1989-90**

	Alliance for Collaborative Change in Education in School Systems <b>ACCESS</b>	California Academic Partnership Program <b>CAPP</b>	California Student Opportunity and Access Program <b>Cal-SOAP</b>	College Admissions Test Preparation Pilot Program <b>CATPP/AVID</b>
<b>Criteria for Student Selection</b>	Middle school: All students enrolled in math and English courses. High school: All stu- dents enrolled in col- lege preparatory math and/or English courses	Students enrolled in pre- college or college pre- paratory courses in English, math, science, social sciences, or foreign language.	Students who are interested in pursuing postsec- ondary educational goals and can benefit from program services.	Students generally in the middle range of achievement who have been recom- mended by a teacher for participation.
<b>Definition of "Served" Student</b>	Students whose teachers participate in ongoing curricu- lum development and classroom-based technical assistance and staff develop- ment activities.	Students receiving direct services from the project in terms of its activity components.	Students participat- ing in at least two in- dividual advisement sessions or two aca- demic support ses- sions, or a combina- tion of both.	Students who participate in any program activity.
<b>Number of Students</b>	<b>7,948</b>	<b>12,071**</b>	<b>30,750</b>	<b>2,200</b>
<b>Grade Level</b>				
Below Seventh	22.4%	0.3%	0.0%	0.0%
Seventh	28.1%	4.6%	5.2%	4.7%
Eighth	27.3%	7.5%	9.7%	11.9%
Ninth	6.7%	29.5%	10.1%	33.3%
Tenth	4.7%	22.0%	13.0%	26.6%
Eleventh	4.8%	19.5%	18.6%	16.6%
Twelfth	5.6%	15.0%	34.9%	6.8%
Other	0.0%	1.6%	8.6%	0.0%
<b>Racial/Ethnic Background</b>	Unavailable, but percentages should reflect schoolwide figures in Display 3.			
Asian		11.6%	7.2%	13.0%
Black		10.6%	30.9%	19.0%
Latino		39.2%	43.1%	49.0%
Native American		1.8%	1.8%	1.0%
White		32.9%	7.4%	17.0%
Other		3.9%	9.3%	0.0%
<b>Gender</b>				
Female	49.7%	52.8%	48.4%	55.0%
Male	50.3%	47.2%	51.6%	45.0%
<b>Socioeconomic Status of the Household*</b>	<b>NR</b>	<b>Mean Parental Edu- cation Index = 2.49.***</b>	<b>\$33,939</b>	<b>\$34,964</b>
		<b>Percent of student par- ticipants whose families are on AFDC = 15.4%.</b>		

\* Except for CAPP, the figures in the row represent the mean household income of program participants, as computed by using a weighed mean of the median household income for families in a zip code area

\*\* This figure reflects the number of students served by CAPP for whom demographic information was available, an additional 5,231 were served by CAPP in the 1989-90 year but demographic information was unavailable on these students. They were omitted from this display for the sake of maintaining consistency throughout this report series

\*\*\* High school graduate, with some but little college experience

College Readiness Program CRP	Early Academic Outreach Program EAOP	Mathematics, Engineering, Science Achievement MESA	Middle College MC	University and College Opportunities Program UCO
Black and Hispanic middle grade students achieving at grade level in terms of achievement tests and grades along with teacher recommendations	Students in junior high school who have the potential to benefit from services to achieve eligibility and who are willing to take prescribed sequence of courses.	Junior High : Students scoring between 40-90 on CRAS, interested in math-based fields, and able to complete algebra in 9th grade. Senior High: Students currently enrolled in college preparatory math or science classes, interested in math-based fields, and willing to take A-F course pattern	Students with a history of truancy, low academic achievement, and counselor recommendation.	Grade point average. Teacher nominations. Aspirations.
Students receiving direct services from program components.	Students who have individual contact with the program at least three times per year.	Students who regularly attend MESA activities, maintain minimum grade-point average, and enroll in prescribed courses.	Students who are enrolled at Middle College High School.	Students who participate in any program activity.
943	51,693	8,919	299	3,148****
7.0%	0.0%	10.4%	0.0%	0.0%
43.0%		13.7%	0.0%	0.0%
50.0%	45.5%	16.2%	0.0%	0.0%
0.0%		14.8%	15.0%	15.9%
0.0%	54.5%	20.0%	60.0%	19.5%
0.0%		18.7%	25.0%	27.1%
0.0%		6.2%	0.0%	37.5%
0.0%	0.0%	0.0%	0.0%	0.0%
0.0%	9.7%	0.0%	1.0%	9.5%
36.0%	18.8%	35.5%	63.0%	52.7%
62.0%	55.7%	60.0%	28.0%	36.3%
0.0%	3.1%	4.3%	0.0%	0.2%
0.0%	9.6%	0.0%	8.0%	1.3%
2.0%	3.1%	0.0%	0.0%	0.0%
60.0%	57.9%	56.3%	54.0%	58.0%
40.0%	42.1%	43.7%	46.0%	42.0%
\$35,517	\$33,929	\$34,978	\$30,638	\$32,228

\*\*\*\*Based on only 12 of 37 participating schools

NR = Not Reported

Source: California Postsecondary Education Commission analysis of Appendices B through J

- 1 Except for the California Academic Partnership Program, the programs computed mean household income figures from the 1980 Census Bureau data, updated for inflation, on the residential areas in which students participating in the program live. The smallest residential unit for which the Bureau publishes income information is a zip-code area, but zip-code areas do not necessarily represent economically homogeneous communities and often consist of quite disparate housing patterns. For example, one of the California Student Opportunity and Access Program (Cal-SOAP) projects used this zip-code methodology, which resulted in a mean household income of \$36,662. When the participating students were surveyed as to their household income, the mean was \$19,637 -- a substantial discrepancy. As such, the estimates presented in Display 4 should be regarded as an upper limit in that the household income of the students served by the programs are certain to be less than the estimates suggest.
- 2 Census information has an inherent bias with respect to household income in that the figures represent only those households responding to the census form. Research studies show repeatedly that people from low-income backgrounds are less likely to complete the census form than those of greater affluence.
- 3 Income figures represent the mean household income that, particularly for families in lower economic strata, often includes funds from parents, children, extended family members, and resources from government subsidies, such as Aid to Families with Dependent Children. Data on household size by zip code, which is unavailable, would greatly enhance the validity of inferences that can be drawn from this analysis.
- 4 While these programs function in schools throughout the State, the majority of students participating in them are city dwellers. As such, the household income data in Display 4 may be inflated by an urban standard of living that, in a purely quantitative sense, masks the extent to which participating students live in, and suffer from, poverty and its consequences.

Notwithstanding these caveats, the mean household income of participating students is relatively consistent across programs -- when using the zip-code methodology -- ranging from a low of \$30,638 for Middle College to a high of \$35,517 for the College Readiness Program. California's mean household income is approximately \$39,000, and thus each of these programs serves a majority of students from households whose income is below average for the State.

The evaluation design for the California Academic Partnership Program (CAPP) necessitated describing the socioeconomic status of CAPP participants in other terms than by residential location. Staff at each participating CAPP school estimated the parental educational level of students involved in the program and the proportion of students in families receiving Aid to Families with Dependent Children funds. As Display 4 indicates, the average CAPP parent is a high school graduate who had not pursued any college education (a mean parental education index of 2.49), as compared to the mean parental educational level of the total school of 2.54 (Display 3). Further, 15.4 percent of CAPP participants come from households receiving support from Aid to Families with Dependent Children, compared to 14.8 percent of students in the households that comprise the total population of the schools participating in CAPP.

#### **Changes in the programs in terms of number of participants and level of resources over the last three years**

These programs have changed during the course of this study in a number of ways.

With respect to participating institutions, three of the programs -- the California Academic Partnership Program (CAPP), the California Student Opportunity and Access Program (Cal-SOAP) and Mathematics, Engineering, Science Achievement (MESA) increased the number of participating school districts and postsecondary institutions during the course of the study.

The characteristics of students in the programs have changed as follows:

- The programs are serving students at an earlier age. For most of them, more of their 1989-90 students were in middle and junior high schools than in earlier years.
- Students from Latino backgrounds comprise an increasing proportion of participants -- not a surprising trend, given the demographic changes in the State's school-age population. In 1989-90, 30.5 percent of California's high school students were Latino -- a rise of almost 3 percent since the inception of the study.
- A smaller percentage of Black students are participating in the programs -- a disturbing trend given their underrepresentation on college campuses throughout the nation.

Display 5 on the opposite page presents information on the changes during this time with respect to the number of participating students and resources in order to identify trends, if any, that may be important in assessing the future of these intersegmental efforts. This display includes information on the eight continuing statewide programs, with the College Admissions Test Preparation Program (CATPP/AVID) omitted from the calculations due to its shift from a statewide to a local program.

Several facts from the display are especially noteworthy.

- 1 There was an increase in students participating in these programs of 17,348, or over 17 percent, since the 1987-88 year. All programs, except the Alliance, served more students in the 1989-90 year than two years earlier, with the largest increases in the California Academic Partnership Program (CAPP), the California Student Opportunity and Access Program (Cal-SOAP), and Early Academic Outreach Program (EAOP).
- 2 State resources totaling \$7,484,573 funded these eight programs during 1990-91. This represents an increase of \$642,486, or 9.4 percent in State General Funds appropriated to these programs in the 1988-89 year. Most of that increase was attributable either to cost-of-living adjustments or internal reallocations rather than to additional funds for expansion or replication.
- 3 The only program that received a substantive infusion of State funds in the last three years was Middle College (MC), which received General Fund support for its implementation during the last two years of this study.
- 4 The amount of institutional support dedicated to these programs is difficult to ascertain precisely because of the variety of sources that may be involved as well as the myriad ways in which these contributions may be expressed. Therefore, the figures for institutional support on Display 5 should be regarded as estimations only.

Estimates of institutional support increased by \$300,618, or 6.6 percent, from the 1988-89 year to 1990-91. The largest gainers in institutional support were the California Academic Partnership Program (CAPP), the California Student Opportunity and Access Program (Cal-SOAP), and the Early Academic Outreach Program (EAOP).

- 5 Private funds traditionally are raised from corporations and foundations. Much like the figures for institutional support, they represent estimates which often exclude valuable in-kind contributions, such as the salaries of executives on loan from corporations to the programs and use of facilities. The level of private support to these programs increased substantially over the course of this study due exclusively to a near doubling of corporate and foundation contributions to Mathematics, Engineering, Science Achievement (MESA).
- 6 Comparisons among programs with respect to their costs are problematic because the programs vary considerably in structure, intensity of services, frequency of interaction with student participants, and types of components offered. For example, Middle College (MC), a program that served a small number of participants for six hours a day each school day of the year costs \$1,037 per year for each student, on the other hand, the Early Academic Outreach Program (EAOP) provided advisement, tutoring, and motivational activities to students, often in a large group setting, on a weekly or monthly basis for \$90.66 per participant over the course of the 1990-91 year. Comparing these programs in terms of operations or costs is much like "mixing apples and oranges." As a consequence, the Commission has computed cost-per-student estimates as a summary measure across all eight of the continuing programs.

**DISPLAY 5** *Student Participation and Amount of Funding by Source for Eight of the Programs Over Two Years, and Percent Change Between the Two Years*

	ACCESS	CAPP	Cal-SOAP	CRP	EAOP	MESA	Middle College	UCO	Total	Per Student Cost
Number of Students										
1987-88	11,500	6,711	26,705	999	46,406	6,006	0*	NR	98,327	
1989-90	7,948	12,071	30,750	943	51,693	8,919	299	3,148	115,771	
Change	-30.9%	+79.9%	+15.1%	-5.6%	+11.4%	+48.5%		-	+17.7%	
State Funds										
1988-89	\$0	\$799,918	\$577,000	\$396,900	\$3,508,269	\$1,430,000	\$130,000	\$0	\$6,842,087	\$69.59
1990-91	0	941,900	577,000	414,910	3,726,534	1,514,229	310,000	0	7,484,573	64.65
Change	0.0%	+17.7%	0.0%	+4.5%	+6.2%	+5.9%	+138.5%	0.0%	+9.4%	-7.1%
Institutional Funds										
1988-89	\$1,250,000	\$825,694	\$976,581	\$121,098	\$875,258	\$524,046	\$0	NR	\$4,572,677	\$46.50
1990-91	1,300,000	1,186,468	1,020,523	101,407	959,992	304,905	0	NR	4,873,295	42.09
Change	+4.0%	+43.7%	+4.5%	-16.3%	+9.7%	-41.8%	0.0%		+6.6%	-9.5%
Private Funds										
1988-89	\$0	\$126,300	\$0	\$0	NR	\$260,383	\$0	\$0	\$386,683	\$3.93
1990-91	0	34,532	0	0	NR	700,219	0	0	734,751	6.35
Change	0.0%	-72.7%	0.0%	0.0%	-	+168.9%	0.0%	0.0%	+90.0%	+61.6%
All Funds										
1988-89	\$1,250,000	\$1,751,912	\$1,553,581	\$517,998	\$4,383,527	\$2,214,429	\$130,000	NR	\$11,801,447	\$120.02
1990-91	1,300,000	2,162,900	1,597,523	516,317	4,686,526	2,519,353	310,000	NR	13,092,619	113.09
Change	+4.0%	+23.5%	+2.8%	-0.3%	+6.9%	+13.8%	+138.5%	-	+10.9%	-5.8%

\* Under development.

NR= No Response

Source: California Postsecondary Education Commission staff analysis of program reports

Summarizing across these eight programs, the total cost to serve each student is estimated to be \$113.09. This figure represents a decrease of \$6.93, or 5.8 percent, in the 1990-91 year from the cost-per-student expenditure in the 1988-89 year. Of that cost, the General Fund contributed \$64.65, or 57 percent. The participating institutions appropriated \$42.09, or 37 percent, for each student served. The private sector contributed \$6.35, or nearly 6 percent, of the cost to serve each student.

### Summary

Displays 3 and 4 present a picture of the circumstances in which the students participating in these programs live and are educated. On the average, these students attend schools in which the majority of pupils are Asian, Black, Latino, or Native American. A significant proportion of the schools' student bodies are recipients of Aid to Families with Dependent Children. The majority of program participants are from backgrounds historically underrepresented in college and from households whose income is significantly below the statewide average. Further,

nearly half of the students will be first generation college students if they decide to pursue their education beyond high school.

The following excerpt from a report submitted by one of the programs included in this study describes specifically the patchwork of obstacles to student learning present daily in these racially, ethnically, and economically isolated schools and communities (1989 Preliminary Report on ACCESS/CCPP, pp 1-2)

Typically, problems faced by these schools reinforce each other and are compounded by a dynamic among them that promotes a self-perpetuating cycle of failure. Low student achievement and weak curriculum are reinforced by low expectations and standards, which in turn are reinforced by a lack of adequately prepared teachers, and instructional practices that do not engage students. These problems are compounded by extreme peer pressures not to take school seriously, a general lack of involvement of parents in their children's education and school, student advising and programming practices that tend to exclude students from college preparatory courses, and policies, management practices, and school organization that tend to foster a negative learning and teaching environment.

Intense fiscal pressures, frequently changing

policies, a lack of long-range planning, and an annual consolidation of teachers and reassignment of administrators exacerbate these conditions, resulting in a lack of continuity and stability in the schools' academic programs. These conditions lead inevitably to low student motivation and teacher morale, teacher burnout and isolation, a disenfranchisement of student, teacher, and administrator communities, and a general lack of hope that conditions could be any different. Many of the schools are in ongoing states of crises. Staff in some schools find themselves starting over again each year, while staff in others are too overloaded to do anything more than survive. Neither the schools nor the districts have a management infrastructure that can support significant change or have a strong capacity to address implementation problems on an ongoing basis. Overall, these problems have a particularly detrimental effect on Black and Hispanic students.

It is within this context and in these schools that the programs which have been the focus of this study seek to achieve their objective of enhancing the preparation for college of students from historically underrepresented backgrounds. The next sections of this report assess their effectiveness in accomplishing this goal.

# 4

## *Efficacy of the Programs*

FROM the perspective of program evaluation, effectiveness has two components: efficacy and efficiency. In this section, the Commission analyzes the efficacy of the programs, or the extent to which they accomplish their objective and contribute to achieving the State's educational equity goals. In Part Five, the Commission assesses their efficiency in doing so.

### **Progress in meeting program objectives**

Regarding program efficacy, a statement from the first report in this series bears repeating (1989, p. 19):

Methodological challenges are inherent in assessing the effectiveness of student-centered programs in a school context. Clearly, schools are complex environments of a holistic nature not readily amenable to rigorous scientific experimentation that provides evidence of cause-and-effect relationships. Few opportunities or possibilities exist within this complicated maze of interactions to manipulate potentially relevant influences on student outcomes. Further, the occasion to manipulate these influences one at a time as required to establish a causal relationship is virtually non-existent. As a consequence, definitive attribution of the effects of a program on student behavior is problematic, if not statistically impossible.

Nevertheless, inferences concerning program efficacy can be gleaned by examining three factors:

1. The extent to which each program met its stated objectives during 1989-90,
2. College-going rates of program participants, compared to that of California's total high school graduating class of 1989; and
3. Changes in performance on a schoolwide basis for those schools participating in the programs.

The following paragraphs and Displays 6 through 14 on pages 34 through 41 present information on the extent to which each of nine programs have progressed in meeting its stated objectives, as identified in the Commission's December 1988 *Prospectus for the Evaluation of Intersegmental Student Preparation Programs*.

### *Alliance for Collaborative Change in Education in School Systems (ACCESS)*

The academic performance of students in Oakland schools participating in the Alliance has continually improved since its introduction in 1980, particularly with respect to trends in preparatory math course enrollments. Students at schools in which the Alliance has been implemented enroll in algebra and subsequent college preparatory mathematics courses earlier in their secondary school careers and, therefore, continue in greater numbers to complete the mathematics requirements for admission to California's two public university systems. With respect to standardized test performance, students in Alliance schools show significant increases in performance on the Math Diagnostic Algebra Readiness and Pre-Calculus tests from 1980 to 1990. Moreover, Black and Latino students at these schools showed similar performance increases on standardized tests measuring readiness to take college preparatory mathematics courses. Additionally, in schools served by the Alliance, the performance of students improved on the quantitative section of the Scholastic Aptitude Test (SAT) from the baseline year to 1990. These test-score gains on both the readiness tests and SAT are particularly significant, since the number of students from these schools taking the examinations has increased, or remained essentially the same, during the same time.

Display 6 on page 34 provides evidence on the effectiveness of the Alliance in terms of change in student performance on a schoolwide level since its inception, particularly on measures related to mathematics competence.

**DISPLAY 6** *Progress of the Alliance for Collaborative Change in Education in School Systems (ACCESS) in Meeting Its Objectives*

**Program Objectives** To strengthen school capacity to prepare students for college, as indicated by improvements in A-F course completion and college eligibility rates, performance on standardized tests, curriculum, instruction, standards, counseling, expectations, leadership, and school organization

**Selection Criteria** All students enrolled in math and English courses in middle schools and all students enrolled in college preparatory math and/or English classes at high school sites receiving assistance for teachers, counselors, and administrators

**Evidence of Effectiveness**

**1 Mathematics Course Completion Rates for Black and Latino Students in Three Oakland Schools and Feeder Junior High Schools**

	Year Before <u>ACCESS</u>	<u>1990</u>
Students completing algebra by the end of ninth grade	7.6%	19.4%
Students completing algebra or geometry by the end of tenth grade	17.1%	34.6%
Students "on track" to meet University of California and California State University mathematics requirement by graduation	10.7%	27.3%
Seniors meeting the University of California and California State University mathematics requirement for college eligibility	1.6%	14.1%

**2 Performance on UC/CSU Algebra Readiness Test (ART) in Five San Francisco Middle Schools**

	<u>All Students</u>		<u>Black and Latino Students</u>	
	<u>1987</u>	<u>1990</u>	<u>1987</u>	<u>1990</u>
Number of students taking Algebra Readiness Test (ART)	558	546	327	294
Mean score on ART	19.7	23.1	16.6	20.6
Percent scoring above minimum threshold	27.8%	37.4%	16.5%	28.2%
Percent scoring above high threshold	11.5%	18.9%	4.3%	12.2%

**3 Performance on UC/CSU Math Diagnostic Pre-Calculus Test (MDT) in Three Oakland High Schools**

	Year Before <u>ACCESS</u>	<u>1990</u>
Number of students taking Math Diagnostic Pre-Calculus Test (MDT)	40	95
Mean percent correct	47.1%	58.4%
Percent scoring above minimum threshold	45.0%	67.4%
Percent scoring above high threshold	20.0%	28.4%

**4 Performance on Math Scholastic Aptitude Test (SAT) for Students Served by Teaching Assistants in Three Oakland High Schools**

	Year Before <u>ACCESS</u>	<u>1990</u>
Number of students taking the Scholastic Aptitude Test (SAT)	53	92
Mean Math SAT score	444	468
Percent scoring above 500	28.0%	36.0%
Percent scoring above 350	81.0%	87.0%

**Source** Appendix B report submitted by the Alliance for Collaborative Change in Education in School Systems Program

### *California Academic Partnership Program (CAPP)*

Display 7 below reveals that student performance at schools participating in CAPP improved on standardized tests in various subjects since the inception of the program, particularly in the math and science areas. College preparatory courses enrollments at these schools kept pace with statewide

changes during the same time period and a larger percentage of Latino students at these schools enrolled in these preparatory classes in the 1989-90 year than two years before. Moreover, a considerably higher percentage of Black and Latino students at schools participating in CAPP enrolled in college preparatory courses than do their statewide classmates. In terms of changes in classroom per-

### **DISPLAY 7    *Progress of the California Academic Partnership Program (CAPP) in Meeting Its Objectives***

**Program Objectives** To improve secondary school curriculum and the ability of students to benefit from these improvements, as measured by gains in performance on national standardized tests, enrollment in college preparatory courses and grades, and decreases in dropout rates

**Selection Criteria** Students enrolled in pre-college or college preparatory courses

#### **1    Performance on National Standardized Tests in Various Subjects in Schools Participating in CAPP**

<u>Curricular Area</u>	<u>Mean Percentile Baseline Year</u>	<u>Mean Percentile 1990</u>
English/Language Arts	52.6	54.9
Mathematics	72.4	79.2
Science	40.2	45.2
Social Studies	70.3	70.9
Average	58.9	62.6

#### **2    College Preparatory Course Enrollments in Schools Participating in CAPP and Schools Statewide**

	<u>CAPP Schools</u>		<u>Statewide Schools</u>	
	<u>1987-88</u>	<u>1989-90</u>	<u>1987-88</u>	<u>1989-90</u>
Asian	20.0%	20.0%	17.0%	19.0%
Black	14.0	14.0	6.0	6.0
Latino	20.0	23.0	11.0	13.0
Native American	0.2	0.3	0.4	0.5
White	45.0	43.0	65.0	60.0

#### **3    Performance in A-F Courses by Students Participating in CAPP**

	<u>Mean Grade Point Average Baseline Year</u>	<u>Mean Grade Point Average 1990</u>
English/Language Arts	2.76	2.54
Foreign Language	3.10	2.84
Mathematics	2.40	2.30
Science	2.64	2.92
Social Science	2.80	2.77
Overall	2.64	2.60

**4    The School dropout rate at CAPP schools decreased from 10 percent in the baseline year to 6 percent in the 1989-90 year**

**Source** Appendix C report submitted by the California Academic Partnership Program

formance, the students participating in CAPP showed a slight decline in mean grade point averages since the baseline year, except in science. The performance among students taking more rigorous courses would be expected to decline more precipitously than occurred. Finally, at schools participating in CAPP, the one-year dropout rate was nearly cut in half -- moving from 10 to 6 percent -- since the introduction of CAPP.

#### *California Student Opportunity and Access Program (Cal-SOAP)*

As Display 8 below shows, students in Cal-SOAP enroll in higher education at a 17 percent higher rate

than those of all students in counties with Cal-SOAP projects. The effectiveness of Cal-SOAP in raising the achievement levels of its students does not appear in Display 8 but will be discussed in a later section of this report.

#### *College Admissions Test Preparation Pilot Program (CATPP/AVID)*

Display 9 on the opposite page presents evidence that the college-going rates of students participating in CATPP/AVID exceeds those of their San Diego County classmates, particularly for the two public universities.

### **DISPLAY 8    *Progress of the California Student Opportunity and Access Program (Cal-SOAP) in Meeting Its Objectives***

#### **Program Objectives**

- 1    To improve the flow of information about postsecondary educational opportunities in order to increase enrollment in postsecondary education, as measured by college-going rates in comparison to other student populations

**Selection Criteria**    Students who are interested in pursuing postsecondary educational goals and can benefit from program services

#### **Evidence of Effectiveness**

##### **Postsecondary Enrollment Rates for 1989 High School Graduates**

Segment of Higher Education	Students in Cal SOAP (N = 5,217)	Students in Cal-SOAP Counties (N = 147,375)
University of California	9.4%	7.8%
The California State University	13.0	11.1
California Community Colleges	38.5	34.7
California Independent Institutions	4.1	2.1
Total	65.0	55.7

- 2    To raise the achievement levels of students served by this program, as measured by course performance

**Evidence of Effectiveness**    Information on this objective is discussed in Part Five of this report.

Source: Appendix D report submitted by the California Student Aid Commission.

**DISPLAY 9    *Progress of the College Admissions Test Preparation Program (CATPP/AVID)  
in Meeting Its Objectives***

**Program Objectives**

To increase the number of students who enroll in postsecondary education, as measured by college-going rates of these students in comparison to other student populations

**Selection Criteria** Students generally in the middle range of achievement who have been recommended by a teacher for participation

**Evidence of Effectiveness**

Segment of Higher Education	Postsecondary Enrollment Rates for 1989 High School Graduates	
	<u>Students in AVID</u> (N = 265)	<u>Students in San Diego County</u> (N = 21,503)
University of California	14.7%	7.6%
California State University	35.8	9.1
California Community College	33.6	36.9
California Independent Institutions	2.3	2.9
<b>Total</b>	<b>86.4%</b>	<b>56.4%</b>

Source Appendix E report submitted by the California Department of Education

***College Readiness Program (CRP)***

Display 10 on page 38 shows the extent to which the College Readiness Program (CRP) is achieving its objectives by comparing the rates at which its students take college preparatory English and mathematics courses with those of the student body as a whole at schools hosting the program. As can be seen, the proportion of recommendations to enroll in college preparatory English and algebra, as well as the actual proportion who complete these courses, is higher for students participating in the program than for students in those schools. Moreover, this display provides evidence that students participating in CRP have enhanced their interest in pursuing college, earning good grades, and learning. Finally, a review of the trends in the program during the course of this study indicates that, each year, the percentage of students participating in the program who have been recommended for and complete college preparatory courses has increased.

***Early Academic Outreach Program (EAOP)***

The rate at which students in the Early Academic Outreach Program (EAOP) achieve eligibility to attend the University of California is substantially higher than the rate for all students statewide, as Display 11 on page 39 indicates. Further, students in each racial-ethnic group who participate in EAOP achieve eligibility to the University at a considerably higher rate than do their counterparts statewide. One reason for this high rate of eligibility is the classroom performance of students who participated in EAOP, as evidenced by the fact that 42.2 percent of the junior-year participants earned grade point averages of 3.0 or better.

This display presents remarkable evidence of program effectiveness. Based upon the Commission's 1986 eligibility study, 875 Black graduates statewide would have been eligible to attend the University in 1988. Of the Black graduates of EAOP, 489 were eligible which represents over half the pool.

## DISPLAY 10 Progress of the College Readiness Program (CRP) in Meeting Its Objectives

### Program Objectives

1. To increase enrollment of Black and Latino students in algebra and college preparatory English by 30 percent, as measured by ninth grade course enrollments

**Selection Criteria:** Black and Hispanic middle grade students achieving at grade level in terms of achievement tests and grades along with teacher recommendations

### Evidence of Effectiveness:

#### Recommended Ninth-Grade Course Enrollments for Eighth Graders in Schools Participating in the College Readiness Program (CRP) in 1990

	Eighth Graders in CRP	Eighth-Grade School Population
Algebra	58.0%	39.0%
College Preparatory English	66.0%	50.0%

#### Ninth-Grade Course Completion in Schools Participating in the the College Readiness Program in 1989

	CRP Participants	Comparison Group of Academically Similar Students
Algebra	63.0%	43.0%
College Preparatory English	76.0%	67.0%

- 2 To improve student preparation and parent motivation and awareness of college, as measured by pre- and post-program attitude survey

### Evidence of Effectiveness

- 90.0 percent of the student participants reported an increase in their desire to attend college.
- 69.0 percent of these students reported that the program had helped them learn and understand mathematics better.
- 69.0 percent of the student participants indicated that the program had improved their self-esteem
- 64.0 percent of the students reported that the program had assisted them in improving their grades.

Source: Appendix F report submitted by the California State University

that would be expected on the basis of the eligibility study. The same figures hold true for Latino graduates, with nearly half of the estimated number participating in EAOP. Additionally, the trends in the percent of students participating in EAOP who attain eligibility to the University has increased each year for every racial/ethnic group.

### Mathematics, Engineering, Science Achievement (MESA)

Display 12 on page 40 shows the degree to which MESA is achieving its objectives by contrasting the performance of its students with that of students statewide in terms of course enrollment and fulfill-

**DISPLAY 11 Progress of the Early Academic Outreach Program (EAOP) in Meeting Its Objectives**

**Program Objective** To increase the pool of students who meet the University of California's admissions requirements, as measured by the eligibility rate of program participants to attend the University of California

**Selection Criteria** Students in junior high school who have the potential to benefit from services to achieve eligibility and who are willing to take prescribed sequence of courses.

**Evidence of Effectiveness**

**1 Eligibility Rates of Students Participating in EAOP**

1986 University of California Eligibility Rates Applied to 1989 High School Graduating Class				1990 EAOP Graduates Eligible for the University of California		
<u>1989 High School Graduates</u>		<u>Proportion Eligible</u>	<u>Number Eligible</u>	<u>1990 EAOP High School Graduates</u>	<u>Proportion Eligible</u>	<u>Number Eligible</u>
Asian	22,829	32.8%	7,488	392	61.5%	241
Black	19,444	4.5%	875	1,099	44.5%	489
Filipino	5,957	19.4%	1,156	341	56.0%	191
Latino	49,040	5.0%	2,452	2,909	50.7%	1,475
White	150,376	15.8%	23,759	269	42.8%	115
Total	247,646	14.1%	35,730	5,010	49.9%	2,552

**2 Cumulative Grade Point Averages of Students Participating in EAOP in A-F Courses**

Grade Point Average	Percent of EAOP Juniors
3.6 and above	13.9%
3.3 to 3.59	11.2%
3.0 to 3.29	17.1%
2.7 to 2.99	16.3%
2.4 to 2.67	16.1%
Less than 2.4	25.4%

Source: Appendix G report submitted by the University of California

ment of test requirements for admission to California's public universities. As can be seen, the proportion of MESA students who are prepared for college, as measured by completion of advanced mathematics and science courses in high school and by fulfilling the universities' admission test requirement, is substantially higher than that of all students in the State, and of Black and Latino students in particular.

**Middle College (MC)**

Display 13 on page 41 presents information on changes in performance of students prior to and during their participation in Middle College (MC). The mean grade point average of students participating in Middle College rose by 0.67 from their performance in the semester immediately preceding their enrollment in the program. That increase

**DISPLAY 12 Progress of Mathematics, Engineering, Science Achievement (MESA) in Meeting Its Objectives**

**Program Objective** To increase the number of students from historically underrepresented backgrounds in math-based fields in college, as measured by enrollment in college preparatory mathematics and science courses and enrollment in mathematics-based fields in college

**Selection Criteria**

- **Junior High** Students scoring between 40 and 90 on CTBS, interested in math-based fields, and able to complete algebra in the ninth grade
- **Senior High** Students currently enrolled in college preparatory math or science classes, interested in math-based fields, and willing to take A-F course pattern

**Evidence of Effectiveness**

**1 Public High School Course Enrollment and Completion Rates**

	1990 MESA Completion Rates	1989 State Enrollment Rates		
		<u>Total</u>	<u>Black</u>	<u>Latino</u>
<b>Advanced Mathematics</b>	<b>90.4%</b>	<b>38.2%</b>	<b>24.9%</b>	<b>23.6%</b>
<b>Chemistry</b>	<b>89.3%</b>	<b>38.5%</b>	<b>33.5%</b>	<b>28.2%</b>
<b>Physics</b>	<b>74.8%</b>	<b>16.9%</b>	<b>9.5%</b>	<b>8.3%</b>

**2 Scholastic Aptitude Test Participation**

	1990 MESA Completion Rates	1990 State Participation Rates		
		<u>Total</u>	<u>Black</u>	<u>Latino</u>
<b>Seniors Taking the SAT</b>	<b>64.5%</b>	<b>42.0%</b>	<b>38.7%</b>	<b>28.8%</b>

Source: Appendix H report submitted by the Mathematics, Engineering, Science Achievement Statewide Office

transformed the mean grades into a C average. Moreover, nearly 39 percent of the students participating in the program at the two sites were earning grade point averages of 2.0 or better as contrasted to only 17 percent prior to enrollment in Middle College. Much of this improvement is undoubtedly attributable to the sharp decline in absenteeism, from an average of over 26 days per semester in their former school to less than eight days per semester at Middle College. While these results are preliminary as they are based on only the first semester and one-half, they indicate that this program is on the way to achieving its objective of increasing the number

of high risk students who earn high school diplomas.

**University and College Opportunities Program (UCO)**

The academic performance of seniors in the University and College Opportunities (UCO) Program exceeds that of California seniors, in general, in terms of the percentage taking the Scholastic Aptitude Test and the scores that they earn, as Display 14 on page 41 indicates. Further, a substantially greater proportion of UCO students complete the course re-

**DISPLAY 13** *Progress of Middle College (MC) in Meeting Its Objectives*

**Program Objective** To increase the number of high risk students who earn high school diplomas, as measured by grade point averages and high school attendance patterns

**Selection Criteria** Students with a history of truancy, low academic achievement, and counselor recommendations

**Evidence of Effectiveness**

	High School Performance	
	Semester Prior to Enrollment at Middle College (N = 102)	Middle of the Second Semester (N = 109)
<b>Mean Grade Point Average</b>	<b>1.42</b>	<b>2.09</b>
<b>Percent with Grade Point Average 3.0 or above</b>	<b>7.0%</b>	<b>17.0%</b>
<b>Percent with Grade Point Average 2.0 or above</b>	<b>17.4%</b>	<b>38.6%</b>
<b>Average Days Absent</b>	<b>26.2</b>	<b>7.9</b>

Source: Appendix I report submitted by the California Community Colleges

**DISPLAY 14** *Progress of University and College Opportunities (UCO) in Meeting Its Objectives*

**Program Objective** To improve the preparation of elementary and secondary school students for participation in postsecondary education, as measured by changes in college admission test-taking performance and course enrollments at participating schools

**Selection Criteria** Grade-point average, teacher nominations, and aspirations

**Evidence of Effectiveness**

**1 College Admissions Test Involvement of California High School Graduates**

	1990-91 Seniors in UCO	1989-90 California Seniors
<b>Percent of seniors taking the Scholastic Aptitude Test (SAT)</b>	<b>53.0%</b>	<b>42.0%</b>
<b>Black and Latino seniors taking the Scholastic Aptitude Test</b>	<b>51.0%</b>	<b>31.0%</b>

**2 High School Course Completion and Eligibility Rates**

	1989-90 Seniors in UCO	1989 California Graduates
<b>Percent of Seniors Completing the A-F Course Pattern</b>	<b>58.4%</b>	<b>31.5% (1988)</b>
<b>Percent of Seniors eligible to attend the California State University</b>	<b>14.8%</b>	<b>27.5% (1988)</b>

Source: Appendix E report submitted by the California Department of Education

quirements for admission to a public university in California

### Postsecondary enrollment rates

The ultimate criterion of effectiveness for these programs is the extent to which program participants enroll in postsecondary education, particularly given that the overwhelming majority of these students are from backgrounds historically underrepresented in colleges and universities. Although such programs rarely monitor the progress in college of their graduates, six of the nine programs provided information on the college-going rates of their former participants. They gathered this information either from postsecondary institutional enrollment records or student reports of their college attendance.

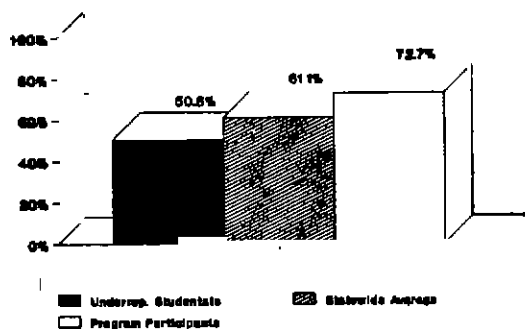
Display 15 below summarizes these results across all six programs. It shows that 72.7 percent of the students from the six programs who graduated during 1989 enrolled in college that fall, compared to 61.1 percent of all California high school graduates that year and only 50.6 percent of Black, Latino, and Native American graduates in the State. In other words, their rate of college attendance was approximately 19 percent higher than their classmates in general, and nearly 44 percent higher than Black, Latino, and Native American graduates throughout California. Moreover, since the inception of this study, the college-going rate for partici-

pating students has increased from 70.9 percent to 72.7 percent -- an indication that these programs are enhancing their efficacy with respect to preparing, encouraging, and assisting students to pursue postsecondary education.

Display 16 on the opposite page compares the enrollment rates of students in each of these programs with the college-going rates for all 1989 California public high school graduates. This display provides evidence that

- Students participating in each program enroll in college in greater proportions than their classmates statewide. In particular, the percentage of students in each of these programs who enroll in public baccalaureate degree-granting institutions is higher than their statewide counterparts. Again, this fact is significant as a demonstration of the effectiveness of these programs, but it is especially impressive when recalling that these programs serve students historically underrepresented in postsecondary education, while a majority of the comparison group consists of graduates from backgrounds traditionally oriented to college.
- Students in these six programs -- the majority of whom are from backgrounds historically underrepresented in postsecondary education -- enroll in college at a significantly higher rate than do their Black, Latino, and Native American classmates statewide. Particularly significant is their higher participation rates in California's public university systems.
- The student selection criteria of a program influences its college-going rates. For example, in order for students to participate in the Alliance (ACCESS) at the high school level and the California Academic Partnership Program (CAPP), they must be enrolled in pre-college or college preparatory courses. The criterion for participation in the California Student Opportunity and Access Program (Cal-SOAP) is a student's interest in pursuing postsecondary educational opportunities -- a more general criterion than that used by other programs. On the other hand, CATPP/AVID selects students in the middle range, places them in college preparatory courses, and provides intensive, direct service for four years. The Early Academic Outreach Program (EAOP) selects students in the seventh or eighth grade on the basis

**DISPLAY 15** *Participation Rates in California Colleges and Universities of Selected Groups of 1989 High School Graduates*



Source: California Postsecondary Education Commission

**DISPLAY 16** *Postsecondary Enrollment Patterns of Graduates from Six Programs and All California Public High School Graduates in 1989 or 1990*

California Postsecondary Institutions	1989 State Graduates (N=244,625)	1989 Graduates from Underrepresented Backgrounds (N=72,306)*	1989 ACCESS Graduates (N=267)	1990 CAPP Graduates (N=477)	1989 Cal-SOAP Graduates (N=5,217)	1989 CATPP/AVID Graduates (N=265)	1990 EAOP Graduates (N=4,564)	1990 MESA Graduates (N=628)
University of California	8.1%	5.8%	15.4%	12.0%	9.4%	14.7%	24.0%	33.0%
The California State University	11.9%	9.0%	23.8%	22.0%	13.0%	35.8%	24.5%	28.5%
California Community Colleges	39.1%	35.8%	28.5%	44.0%	38.5%	33.6%	28.0%	11.0%
Total California Public Higher Education	59.1%	50.6%	67.5%	78.0%	60.9%	84.2%	78.5%	72.5%
Independent California Institutions	2.0%**	N/A	2.2%	N/A	4.1%	2.3%	2.2%	12.6%
Total California Institutions	61.1%	50.6%	69.5%	78.0%	65.0%	86.4%	78.7%	85.1%

\* Includes Black, Latino, and Native American students

\*\* This figure includes students enrolled in independent colleges and universities from private as well as public schools in the State

Source: California Postsecondary Education Commission

of potential and willingness to enroll in the "A-F" sequence of high school courses, while "students who show a lack of interest in meeting these criteria or who do not plan to attend college are referred to other, more appropriate programs or services" (Appendix G). As a consequence, continuation in this program through high school graduation depends on the stability of a student's plan to attend college, as demonstrated by enrollment in courses preparatory for that plan. Students selected for Mathematics, Engineering, Science Achievement (MESA) must be enrolled in college preparatory mathematics or science courses and must express an interest in pursuing mathematics-based majors in college. Not surprisingly, then, students in Cal-SOAP enroll in four-year colleges and universities at a rate lower than students participating in these other programs, while students enrolled in programs that are more selective initially or whose criterion for

continuation in the program is stricter have higher college-going rates.

### Changes in performance on a schoolwide level

Three programs in this study have focused their analyses of effectiveness on a schoolwide level, albeit for somewhat different reasons:

- The strategy for implementing the Alliance for Collaborative Change in Education in School Systems (ACCESS) is premised on building a total school capacity for change and only secondarily on providing *direct* services to students. As such, schoolwide performance measurements and their change over time provide the most relevant evidence of program efficacy for this school-based model.

- On the other hand, the California Department of Education -- the administrative agency initially responsible for the College Admissions Test Preparation Pilot Program (CATPP/AVID) -- and the California Academic Partnership Program (CAPP) assess the efficacy of student-centered programs in terms of their capacity not only to affect participating students directly but also serve as a change agent for the entire school. This logic suggests a strategy that calls for the institutionalization of effective student-centered models on a schoolwide basis so that they can ultimately affect the performance of far more students than can be served by any one program or set of programs. Flowing from this logic is an assessment methodology based on examining schoolwide performance changes over time.

These programs have provided information on changes in student performance at their participating schools. For the Alliance, schoolwide information appeared in Display 6 on page 22 and was analyzed in the previous discussion. Information on schoolwide change for the California Academic Partnership Program was analyzed in Display 7 on page 23.

Display 17 below presents evidence of effectiveness of the College Admissions Test Preparation Pilot

Program (CATPP/AVID) in terms of changes in student performance on a schoolwide level since its implementation.

The information in Display 17 reveals that

- Schoolwide performance improved from 1985-86 to 1989-90 on all measures related to college preparation -- lessening of the three-year dropout rate, growth in the percentage of students enrolling in and completing college preparatory courses, enhanced performance levels of students on the Scholastic Aptitude Test, and the college-going rates of graduates -- are significant indices of schools preparing students more effectively for college.
- These changes at schools participating in the program are particularly noteworthy when compared to the trends during this same time period at the State level. On virtually all measures, the changes at the schools participating in the program outstripped those of all schools statewide. Moreover, with respect to dropout rates, enrollment in, and completion of, the "A-F" course sequence, these schools are all performing at a higher level than schools throughout the State. However, a significant gap remains between these sites and all California Schools on SAT performance and college-going rates. This finding is

**DISPLAY 17** *Student Performance at Schools Participating in the College Admissions Test Preparation Pilot Program (CATPP/AVID) and Statewide in 1985-86 and 1988-89*

Performance Measures	CATPP/AVID Schools			Statewide		
	1985-86	1989-90	Percent Change	1985-86	1989-90	Percent Change
Three-Year Dropout Rate	26.2%	16.4%	-37.0%	24.9%	21.5%	-14.0%
Percent of Students Enrolled in A-F Courses	34.1%	59.1%	74.0%	44.0%	47.0%	6.0%
Seniors Completing "A-F" Course Sequence	17.0%	33.1%	95.0%	28.0%	32.0%	13.0%
Percent Scoring at Least 450 on the Verbal Section of the SAT	10.9%	12.1%	11.0%	18.1%	18.7%	3.0%
Percent Scoring at Least 500 on the Mathematics Section of the SAT	11.3%	12.2%	8.0%	19.6%	20.5%	5.0%
Percent of Graduates Enrolling at California Public Universities	11.6%	15.7%	35.0%	17.3%	17.2%	-1.0%

Source: Appendix E report submitted by the California Department of Education.

not surprising, given that CATPP/AVID functions in schools with high proportions of students from backgrounds historically underrepresented in college

### Summary

The programs have demonstrated their efficacy to enhance the preparation for college of students from Black, Latino, Native American, and low-income backgrounds, particularly in rural communities -- those groups who historically have been underrepresented in postsecondary education. For exam-

ple, the majority of students in the programs are from underrepresented backgrounds, yet proportionally more than 10 times as many of these students achieve eligibility to attend California's public universities than students of similar backgrounds statewide, and proportionally 3.5 times as many of those students achieve eligibility than California's graduating seniors generally -- a majority of whom come from backgrounds in which college attendance is a tradition. Finally, these program participants enroll in college at a rate nearly 44 percent higher than their counterparts from underrepresented backgrounds and 19 percent higher than graduating seniors in general.

# 5

## Efficiency of the Programs

IN THIS section of the report, the Commission describes the effectiveness of the nine intersegmental programs from the perspective of efficiency -- that is, the degree to which the nine, as a collective, maximize State resources dedicated to achieving access-oriented educational equity goals

Since California's colleges and universities began to cooperate with its public schools to prepare students for college, the issue has been raised as to whether these programs, as a set, efficiently manage State resources in an integrated and coordinated fashion. Put in other terms, the question is often asked: Are these programs concentrating resources on only a few schools throughout the State and providing the same services to the same students at these schools?

To respond to that question, the first report offered this recommendation (p. 26):

Commission staff, in conjunction with program officers, should prepare a profile of these programs in terms of participating schools statewide. In this way, policy-makers will be assisted in examining patterns in service delivery and coordination among programs.

Appendix A in this report contains that profile. Display 18 below summarizes the information in

that appendix and shows the extent to which State resources allocated to these programs are efficiently distributed throughout California.

### Conclusions

At least four major conclusions may be drawn from the evidence about the distribution of programs:

1. Of the 13,576 public and private schools in California, 720, or 5.3 percent, of them participated in at least one of these nine intersegmental programs during 1990-91. This figure indicates that 27 fewer schools statewide were participating in these programs in the 1990-91 year as contrasted to the year before. This reduction is due primarily to the decision by the Early Academic Outreach Program (EAOP) to serve fewer schools more intensively.
  - At the elementary school level -- a level only recently invited to become involved in these programs -- less than 1 percent, or 55, of the schools participate.
  - At the secondary school level -- middle, junior,

**DISPLAY 18** *Distribution of the Nine Intersegmental Student Preparation Programs Throughout California Public and Private Schools in the 1990-91 Year*

Programs at Each Site	Elementary Schools		Secondary Schools		Total Schools	
	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>
None	9,557	99.4%	3,299	83.2%	12,856	94.7%
One	53	0.6	412	10.4	465	3.4
Two	2	0.0	178	4.5	180	1.3
Three	0	0.0	62	1.6	62	0.5
Four	0	0.0	10	0.3	10	0.1
Five	0	0.0	2	0.1	2	0.0
Six	0	0.0	1	0.0	1	0.0
Total	9,612	100.0%	3,964	100.0%	13,576	100.0%

Source: Data from Appendix A.

and senior high schools -- 17.8 percent of the schools participate

- 2 Of the 720 participating schools, 465 of them, or 65 percent, are involved in only one program
- 3 Of the remaining 255 schools that participate in more than one, 180 of them, or 71 percent, are involved in only two of them. In examining the pattern of involvement of these 180 schools, in a majority of cases, they participate in two quite different programs -- on the one hand, a primarily student-centered program such as the California Student Opportunity and Access Program (Cal-SOAP), the College Admissions Test Preparation Pilot Program (CATPP), the College Readiness Program (CRP); the Early Academic Outreach Program (EAOP), Mathematics, Engineering, Science Achievement (MESA), or the University and College Opportunities (UCO) program, and -- on the other -- a curriculum-oriented or total school-change program such as the Alliance for Collaborative Change in Education in School Systems (ACCESS) or the California Academic Partnership Program (CAPP). As such, the synergy from these different strategies at these schools creates a comprehensive and mutually complementary approach for serving students.

Further, at those schools where two or more programs are functioning, program staff report that a high degree of coordination and cooperation exists among service providers. That cooperation may take one or more of the following forms:

- In the schools served by the Alliance for Collaborative Change in Education in School Systems (ACCESS), the program functions as a base for referring individual students to other programs to receive more intensive and personalized assistance, if needed.
- Five of the programs -- the Alliance for Collaborative Change in Education in School Systems (ACCESS), the California Student Opportunity and Access Program (Cal-SOAP), the Early Academic Outreach Program (EAOP), Mathematics, Engineering, Science Achievement (MESA), and the University and College Opportunities (UCO) Program -- report developing a collaborative system that matches students with whichever program is most appropriate to their educational aspirations, needs,

and achievement level. In this manner, a comprehensive set of services are available to the school, with each program contributing to the whole by providing separate services to different students.

- At several schools, programs cooperate in delivering common services to students. An example of this approach is found in the Berkeley schools where three programs -- Early Academic Outreach (EAOP), Mathematics, Engineering, Science Achievement (MESA), and University and College Opportunities (UCO) -- are able, by combining their resources, to offer skill development and enrichment classes to over 80 students. Without this level of coordination, only one class for fewer than 30 students could be offered.
  - In some instances, the California Academic Partnership Program (CAPP) -- a competitive grant program that supports financially the development of curriculum-oriented partnerships between schools and postsecondary institutions -- provides the resources for other intersegmental programs, such as the California Student Opportunity and Access Program (Cal-SOAP) and Mathematics, Engineering, Science Achievement (MESA), to expand their traditional advisement, outreach, and academic support services into the curriculum development area. At these sites, CAPP's involvement with one of these other programs results in a more comprehensive array of service than could be delivered by a single program.
- 4 Finally, the matrix in Appendix A reveals that the 75 schools participating in more than two programs tend to be both large and located in major urban areas with a high proportion of students from backgrounds historically underrepresented in postsecondary education. Due to these two characteristics, the likelihood is small that any one program, functioning unilaterally, could efficaciously provide these schools with the level of service they need.

## Summary

This analysis shows that these nine intersegmental programs clearly distribute resources in a manner

that minimizes the possibility of services to individual students being inefficiently concentrated in a limited number of schools. As such, it indicates that the resources allocated to these programs are being distributed statewide in an efficient manner.

However, due to budgetary constraints, less than 6 percent of California's schools participate in any of these programs. These constraints force program administrators to deliver services to far fewer schools than want to participate or than have student bodies composed of sufficient numbers of Black, Latino, Native American, or low-income students, especially in rural communities, who could benefit from involvement in these programs. In

particular, schools in rural counties, often at a distance from the administering postsecondary institutions, are seldom participants in these programs -- a fact that continues to contribute to the low college-going rates of their students.

Moreover, until the relation between program components and student achievement -- the topic of the next section of this report when completed in December -- is more clearly understood, the Governor, Legislature, and education officials will be hampered in their efforts to accelerate California's rate of progress in achieving its educational equity goals.

# 6

## Effective Program Components

IN ADDITION to preparing students for postsecondary education, these programs have functioned as laboratories for learning how California's schools and colleges can most effectively and efficiently increase the number of California students from historically underrepresented backgrounds who enroll and succeed in college. As such, the programs' experiences are beneficial in addressing the question *Are certain components or activities of intersegmental programs more effective than others in increasing student achievement?* If so, California's Governor, the State Legislature, State educational agencies, and California's colleges and universities can emphasize these particular elements in developing ways to serve all of California's students who need these services in order to prepare for college rather than only the small proportion who are fortunate enough to attend schools currently participating in these programs.

In its second report on these programs (1990, pp. 35-41), the Commission discussed preliminary data about the most effective elements of three of them -- the California Student Opportunity and Access Program (Cal-SOAP), the College Readiness Program (CRP), and Mathematics, Engineering, Science Achievement (MESA). Since then, these three programs have completed further studies of their components' effectiveness, and three more have reported similar data for the first time. Three programs were unable to provide information to be included in this section for several reasons:

- Middle College (MC) is structured such that every student receives the same services and participates in similar activities. As a consequence, there is a lack of sufficient variation to contribute to this analysis.
- The College Admissions Test Preparation Program, of which the Advancement via Individual Determination (CATP/AVID) was one project, had ceased to be a statewide program at the time plans for this analysis were developed, and the information necessary to contribute to this analysis had not been collected previously by CATP/AVID.
- The University and College Opportunities (UCO) Program was unable to ascertain the necessary information from its projects to assess the relationship between specific program components and student achievement.

In this section of this final report, the Commission summarizes all of the findings from the six contributing programs and then offers several generalizations about specific program components that can help achieve California's educational equity goals. While each program has sought to provide evidence of the relationship between its components and student achievement, all of them have understood that their analyses might well differ as a function of differences in their design, implementation strategies, analytic sophistication, and resource availability.

### Perceived effectiveness of specific components of six of the programs

#### *Alliance for Collaborative Change in Education in School Systems (ACCESS)*

In Part Four of this report, the Commission documented how remarkably successful the Alliance for Collaborative Change in Education in School Systems (ACCESS) has been in improving the academic performance of students in its participating Oakland and San Francisco schools. The Alliance, funded by the University of California and the Oakland and San Francisco school districts, has sought to make this improvement through assisting each school engage in its own change process that leads to curricular, instructional, and organizational reform and thus to increased student academic performance, and it has sought to identify the contribution to the change process of three of its chief components -- (1) technical assistance to teachers, counselors, and administrators at the schools, (2) staff development for these groups, and (3) special student services, including tutoring, academic and college advising, and in-class instruction. Through a

confidential questionnaire survey, the Alliance gathered information on the relative value that teachers, counselors, and administrators at the participating schools ascribed to each of these three components on their curricular, instructional, and assessment practices. This survey indicates that all groups give equally high marks to the technical assistance and staff development components of ACCESS in enhancing curriculum, instruction, and assessment. Respondents overall do not differentiate between these two components in terms of their value. Rather, their comments indicate that the combination of these two components seems to have a synergistic effect in achieving desired outcomes.

In addition, the student services component of ACCESS clearly has a positive impact on student performance and college-going rates, based not only on an analysis of overall trends since the start of the program but also on evidence of a one-year decline in student performance at those schools in which the level of these direct services to students was reduced for budgetary reasons during 1988-89. Moreover, the questionnaire survey reveals that school staff believe that the impact of the technical assistance and staff development components of ACCESS is enhanced when direct support services are available to students. In other words, while these two staff-oriented components of the program are clearly important in affecting curriculum, instruction, and assessment practices, their influence on student academic performance is accentuated when direct services are available to help students learn from these practices.

#### *California Academic Partnership Program (CAPP)*

As part of its continuing interest in the value of partnerships in achieving a variety of educational objectives, the California Academic Partnership Program (CAPP) has twice convened focus-group meetings with representatives of its school districts, colleges, and university campuses to discuss the process and qualitative aspects of their collaborative effort. The discussions at these meetings provided the background for the analysis that Dennis Galligani, a former member of the CAPP Advisory Board, has conducted to identify the relationship between specific components or activities and student achievement (Galligani, 1990a and 1990b).

Representatives of the schools and colleges funded during the first cycle -- from 1984 to 1987 -- perceived that three program components were most positively related to high student academic achievement:

- 1 Specialized tutoring in small group settings complemented the curricular and pedagogical changes that are the focus of CAPP projects;
- 2 Parental involvement in the school's activities and sensitivity to the needs of their children with respect to their educational objectives supplemented the projects' efforts and enhanced student achievement, and
- 3 Summer programs -- particularly of a residential nature -- furthered students' interest in pursuing postsecondary opportunities and made constructive use of regular non-school time to prepare students academically and motivationally for more rigorous course offerings.

These CAPP participants also sensed that the summer before the ninth grade -- often the beginning of high school -- was optimal for this summer experience.

Participants in the 1987-90 cycle expanded on the views of the earlier participants. They concluded that the effectiveness of collaborative efforts is significantly improved when

- 1 Projects of curricular and instructional change encompass the total school and provide direct services to students who need them in order to benefit fully from the classroom changes that emerge from the project. Among those direct services are (1) enrichment activities such as field trips, (2) involvement in student clubs, (3) mentoring arrangements, and (4) academic support activities such as tutorial assistance, academic advising, and summer programs.
- 2 The practice of "tracking" is abolished in favor of heterogeneous learning environments that serve to reinforce or establish positive expectations among teachers about the ability of *all* students to learn when appropriate assistance is available.
- 3 Staff development programs emphasize the multicultural nature of today's California students and materials and instructional techniques that teachers can bring to those learning environ-

ments to facilitate the learning of students from various cultures, and,

- 4 These activities are initiated earlier in the educational careers of students -- preferably at the third grade level

#### *College Readiness Program (CRP)*

During 1989-90, the College Readiness Program of the California State University examined the relationship between its components and student attainment by identifying among its ten participating school districts two groups of five schools each

- 1 Those five with the greatest proportion of participating students recommended for, and completing, college preparatory English and mathematics courses, and
- 2 Those five with the smallest proportion of such students

Display 19 below describes the nature of the Program's major components at the first group of schools -- those most effective in terms of having participating students recommended for and completing college preparatory English and mathematics courses.

#### **DISPLAY 19**    *Characteristics of Program Components at Effective College Readiness Program Schools*

Program Organization	Tutorial Component	Motivational Component	Parental Component
<ul style="list-style-type: none"> <li>• Principal is integrally involved and visibly supportive of the project (i.e., visits classrooms; involves interns in staff meetings; selects and supervises staff and teachers; sends congratulatory letters to students and recognizes their participation).</li> <li>• Principal monitors the progress of the program.</li> <li>• Teaching faculty involved with the program are paid a stipend.</li> <li>• Teaching faculty are supportive of the program.</li> <li>• District administrators are aware of and support the program.</li> <li>• CRP is a school priority.</li> <li>• Presence of CRP is highly visible in the school (i.e., displays, fund raisers, contests, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• There is consistent attendance by student interns and students.</li> <li>• Academic content of tutorial program is integrated with the school curriculum focusing on mathematics and writing</li> <li>• Training of interns focuses on sensitivity to Black and Latino cultures</li> <li>• Emphasis is placed on pre-algebra and algebra.</li> <li>• Middle school teachers include materials that supplement curriculum provided by CSU interns.</li> <li>• Middle school teachers are given release time to meet and plan with student interns</li> <li>• Small groups are formed using cooperative learning approaches</li> <li>• Computer software is used with math manipulatives.</li> <li>• Lead interns are used to complement the program.</li> </ul>	<ul style="list-style-type: none"> <li>• Incentive and disincentive programs exist to encourage students' regular and active participation.</li> <li>• Motivational materials (i.e., bookcovers, T-shirts, and bookstore items) are provided</li> <li>• Field trips are sponsored.</li> <li>• Black and Latino tutors visit eighth grade classrooms to provide motivational talks about the importance of attending college.</li> </ul>	<ul style="list-style-type: none"> <li>• Frequent and extensive communication with parents (i.e., telephone calls, progress reports, and printed information).</li> <li>• Parents are involved in CRP field trip activities and Saturday college.</li> <li>• Parental information is provided in English and Spanish.</li> <li>• Bilingual speakers are present at the parent meetings.</li> <li>• Family math demonstrations are given</li> <li>• Progress reports are completed and given to parents for one-to-one discussions at parent nights.</li> <li>• Students receive credit when parents attend meetings.</li> <li>• Demonstrations by students are presented during parent information nights.</li> <li>• Parents attend campus tours.</li> </ul>

Source    Abstracted from Appendix F of the Commission's Second Progress Report on the Effectiveness of Intersegmental Student Preparation Programs (California Postsecondary Education Commission, 1990 )

In summary, the program components that differentiate these five most effective schools from the least effective in terms of student achievement are

- School leadership and commitment to the program,
- Strong and consistent involvement from the school staff,
- Supplementing of the school's instructional program by the project, and
- Parental involvement in the educational lives of their children

During 1990-91, the College Readiness Program administered a survey to students at all 15 schools that had participated in the program from its inception in order to examine in more detail the relationship between its components and student achievement. Display 20 below presents the results of this survey in terms of the extent to which students perceive that their attitudes, behavior, or knowledge have changed as a function of participation in the program.

More than half the students responding to the survey thought that they had changed with respect to each of the listed dimensions. In particular, a

**DISPLAY 20** *Student Perception of the Change in Their Attitudes and Behaviors Due to Participation in the College Readiness Program (CRP), in Percentages*

Changes	Improved	Stayed the Same	Got Worse
<b>Feelings about</b>			
Abilities	76%	21%	2%
After School Activities	72	24	4
School	66	31	4
Self	73	26	2
<b>Grades in</b>			
English	61	34	5
Mathematics	55	37	7
Reading	52	46	2
<b>Interest in</b>			
Attending College	86	13	1
Different Careers	78	20	1
Doing Homework	73	24	3
English	67	32	1
Getting Good Grades	85	14	1
Mathematics	65	31	4
Reading	65	32	2
<b>Understanding of</b>			
College	89	10	1
English	68	31	2
Math	71	25	4
Reading	65	34	1

Source: Appendix F report submitted by the California State University

greater proportion of students expressed the view that their interest, knowledge, and attitudes about school and college attendance had changed positively than thought that their performance, as measured by grades, had improved. Yet these students were enrolled in more rigorous courses during their participation, and relatively few reported that their grades had declined -- an indication that they were adapting well to college preparatory instruction.

*California Student Opportunity  
and Access Program (Cal-SOAP)*

*Early Academic  
Outreach Program (EAOP)*

*Mathematics, Engineering,  
Science Achievement (MESA)*

Three of the programs -- the California Student Opportunity and Access Program, the Early Academic Outreach Program, and Mathematics, Engineering, Science Achievement Projects (Cal-SOAP, EAOP, and MESA) -- collaborated on developing a relatively similar survey in order to examine more extensively the relationship between their specific components and student learning. The survey consisted of three common sections, involving the perceptions of student participants regarding the

- 1 Frequency of their participation in each component or activity,
- 2 Extent and type of change in their attitude or behavior, and
- 3 Amount of benefits derived from each component or activity

Each California Student Opportunity and Access Program project administered the survey to over 3,000 of its participants. All students attending the 1990 Early Academic Outreach summer residential program were surveyed, and a random sample of students who had participated in Mathematics, Engineering, Science Achievement for more than one year were requested to respond to the questionnaire.

Display 21 on the next page presents information on the types of benefits that these students perceive accruing to them from participation in either Cal-SOAP, EAOP or MESA. Clearly, students believe that these programs whetted their interest in pursuing academic subjects, and the Early Academic Out-

reach Program increased their ability to do so both in discipline-specific courses and in writing.

Display 22 on page 57 details the results from the survey with respect to students' perceptions of the degree of benefit that they received from specific components. As this display indicates, almost all the program activities were viewed as helpful by a majority of participants in the programs -- a tribute to the design and implementation of the components by project staff. However, a greater proportion of students perceive that intensive activities, such as summer programs, academic advisement, working routinely with college students and project staff, and college admission test preparation workshops are more beneficial than receiving written materials or participating in sporadic activities. The exceptions to this generalization are MESA Day, which involves mathematics and science competitions among students from different MESA centers and which serves as a culmination of intensive preparation for the competition, and the transcript evaluations organized by Cal-SOAP in conjunction with the University of California.

A second survey administered by the Early Academic Outreach Program supports this finding with respect to the value of summer programs. The responses from students who participated in the 1990 summer programs indicated that nearly 85 percent perceived that they were more likely to pursue a college education, and 72 percent opined that they were more motivated to excel academically than before the summer experience.

**Relations between specific program  
components and student performance**

Two of the programs -- the College Readiness Program (CRP) and Mathematics, Engineering, Science Achievement (MESA) -- sought to measure the correlation between particular program activities and the academic performance of students who participate in them.

*College Readiness Program (CRP)*

The College Readiness Program (CPR) provided information bearing specifically on the relationship between the participation of each student in specific

**DISPLAY 21** *Student Perceptions of the Change in Their Attitudes and Behaviors Due to Participation in the California Student Opportunity and Access Program (Cal-SOAP), the Early Academic Outreach Program (EAOP), and the Mathematics, Engineering, Science Achievement (MESA) Program, in Percentages*

<u>Changes</u>	California Student Opportunity and Access Program (Cal-SOAP)			Early Academic Out- reach Program (EAOP)			Mathematics, Engineering, Science Achievement		
	<u>Improved</u>	<u>Stayed the Same</u>	<u>Got Worse</u>	<u>Improved</u>	<u>Stayed the Same</u>	<u>Got Worse</u>	<u>Improved</u>	<u>Stayed the Same</u>	<u>Got Worse</u>
<b>Interest in</b>									
Advanced Math	NA	NA	NA	68%	31	1%	61%	34%	3%
Advanced Science	NA	NA	NA	66	28	2	57	38	2
Career Choices	54 7	38 0	1 0	73	25	1	72	22	0
College Choices	68 8	24 0	2 1	73	25	1	80	18	0
College Degree	63 3	29 7	2 4	44	54	2	78	20	0
Doing Homework	NA	NA	NA	41	52	2	48	48	1
Doing Well in School	38 8	54 4	5 7	27	64	3	NA	NA	NA
Good Grades	57 3	36 9	3 9	75	22	0	73	24	0
Writing	NA	NA	NA	76	22	1	NA	NA	NA
<b>Grades in.</b>									
English	NA	NA	NA	76	22	1	37	57	4
Math	NA	NA	NA	66	28	2	43	49	2
Science	NA	NA	NA	68	31	1	44	50	3
All Subjects	39 9	46 1	10 2	NA	NA	NA	NA	NA	NA
<b>Proficiency in</b>									
Organizational Skill	NA	NA	NA	36	56	2	48	46	2
Study Skills	NA	NA	NA	41	52	2	48	48	1
Understanding									
Abstract Concepts	NA	NA	NA	44	54	2	NA	NA	NA
Use of Study Time	NA	NA	NA	27	64	3	NA	NA	NA
Writing	NA	NA	NA	75	22	0	NA	NA	NA

NA = Not Applicable

Source Appendix G Report submitted by the University of California and Appendix H report submitted by the Mathematics, Engineering, Science Achievement Statewide Office

program activities and the grades each of these students received in college preparatory English and algebra courses. The results indicated a lack of either a substantive or statistically significant relationship, in that the frequency of students' participation in a particular activity did not appear to be clearly associated with the grades they earned. One reason for this finding may be the similar organization and implementation of the College Readiness

Program at all 15 school sites. As a result of this similarity, little variability occurs in the frequency of student participation -- a necessity for correlational analyses to yield statistically significant results. Unfortunately, information is not available on the quality of the Program's several components -- a factor that may be more related to student learning than simply the quantity or frequency of their participation.

**DISPLAY 22** *Student Perceptions of the Benefits of Each California Student Opportunity and Access Program (Cal-SOAP), Early Academic Outreach Program (EAOP), and Mathematics, Engineering, Science Achievement (MESA) Program and the Components, in Percentages*

Changes	California Student Opportunity and Access Program (Cal-SOAP)			Early Academic Outreach Program (EAOP)			Mathematics, Engineering, Science Achievement		
	Helpful	Not Helpful	Not Offered	Helpful	Not Helpful	Not Offered	Helpful	Not Helpful	Not Offered
Academic Assistance	NA	NA	NA	90%	3	7%	91	2	6%
Academic Competitions	NA	NA	NA	NA	NA	NA	85	1	13
Career Presentations	81 4	3 9	14 8	44	4	52	88	2	10
College Admission Test Preparation Workshops	81 2	5 8	13 1	80	5	15	90	0	10
College Advisement	93 9	1 3	4 8	66	4	30	94	0	5
College Student Affiliation	89 8	3 3	6 9	83	4	13	NA	NA	NA
Educational Events	86 7	3 0	10 3	58	6	38	NA	NA	NA
Financial Aid Workshops	85 5	2 8	1 7	NA	NA	NA	NA	NA	NA
Field Trips	91 0	2 4	6 1	66	6	29	97	1	2
Math Workshops	NA	NA	NA	NA	NA	NA	85	1	14
Meetings with Program Staff	NA	NA	NA	76	3	22	91	3	6
MESA Classes	NA	NA	NA	NA	NA	NA	88	2	10
MESA Day	NA	NA	NA	NA	NA	NA	92	2	6
Newsletters/Publications	78 0	5 0	17 0	51	6	42	NA	NA	NA
Parent Events	69 0	5 9	25 1	68	0	22	79	6	16
Recognition Ceremonies	NA	NA	NA	84	4	12	7	1	12
Saturday Programs	NA	NA	NA	42	16%	43	NA	NA	NA
Science Workshops	NA	NA	NA	NA	NA	NA	78	2	21
Summer Jobs	NA	NA	NA	NA	NA	NA	81	6	13
Summer Programs	54 2	10 7	35 1	90	4	6	89	0	11
Transcript Evaluations	86 0	6 8	7 2	NA	NA	NA	NA	NA	NA

NA = Not Applicable

Source Appendix G Report submitted by the University of California and Appendix H report submitted by the Mathematics, Engineering, Science Achievement Statewide Office

#### *Mathematics, Engineering, Science Achievement (MESA)*

Using correlational analysis, MESA examined the relationship between participation in each component and grades in a variety of courses, including English, mathematics, and science. Display 23 presents those relationships in which the correlation coefficient is greater than 0.4 -- an indication of a statistically and, potentially, substantively significant relationship. While inconclusive because of the relatively selective nature of the MESA stu-

dent population, this analysis does suggest that a number of MESA components should be further examined to ascertain their distinct and unique relationship to the performance of students in particular classes.

#### **Summary**

While less than definitive, several observations from these analyses are noteworthy.

**DISPLAY 23    *Relationship Between Participation in MESA Program Components and Specific Courses***

<b>Program Components</b>	<b><u>Courses</u></b>	<b>Correlation Coefficient</b>
Junior/Senior High School Exchange	Calculus	+ 0.44
Math/Science Competitions	Pre-Algebra	+ 0.43
MESA Class	Geometry	+ 0.44
MESA Class	Advanced Algebra	+ 0.48
Parent Events	Trigonometry	+ 0.74
Parent Events	Physics	+ 0.43
Recognition Ceremonies	Biology	+ 0.55
Recognition Ceremonies	Ninth Grade English	+ 0.43
Student Leadership Events	Biology	+ 0.51
Summer Job	Calculus	+ 0.48
Summer Program	Calculus	+ 0.52

Source Appendix H report submitted by the Mathematics, Engineering, Science Achievement Statewide Office

- 1 In those three programs (CAPP, EAOP, and MESA) where there are summer activities , especially of a residential type, students perceive that this experience is of particular benefit, perhaps because of the opportunity it offers to learn about college life first hand
- 2 Intensive activities both in the summer and during the academic year are perceived by students as most beneficial. Additionally, the more intensive activities are relatively prominent among the components most associated with high grades in MESA, as indicated on Display 23
- 3 Despite the specifics of a program's design, direct services to students appear to enhance performance gains in each program that provided information on the relationship between individual components or activities and student achievement
- 4 Much remains to be learned from these programs. Shoring up the programs' analytic capabilities with expanded resources is an investment that the State may well consider in order to accelerate achievement of its educational equity goals. Not only do these programs provide clear evidence that students from historically underrepresented backgrounds will prepare for, and enroll in, college at rates considerably higher than their classmates statewide when well-designed and implemented assistance is forthcoming but they also offer examples of particularly effective components that can be implemented in most California schools in order to provide this help

## The Importance of Educational Collaboration

THE NINE student preparation programs that are the subject of this report are part of a much larger effort to meet California's educational equity goals established most recently through Assembly Concurrent Resolution 83 (Chacon, 1984). This effort includes not only these intersegmental programs but also programs administered independently by each of the systemwide offices and their campuses, such as the Educational Opportunity Programs (EOP) of California's two university systems, and Extended Opportunity Programs and Services (EOPS) of the California Community Colleges. As a result, these intersegmental programs do not have unique or distinctive goals.

What makes these programs distinctive among all student preparation programs is their intersegmental nature. Referred to variously as instances of "cooperation," "collaboration," and "partnership" among California's educational systems, these programs exemplify an important and innovative paradigm for meeting educational challenges -- that of collaboration among different sectors of the educational system. This paradigm includes not only intersegmental student preparation programs but also the California Writing Project and the seven other "subject matter projects" authorized under Senate Bill 1882 (Morgan, 1988), the Eisenhower Mathematics and Science State Grant Program funded under Federal Public Law 100-297, the Community College Transfer Centers authorized through the 1985-86 Budget Act, and the "2+2+2" programs extending across school, community college, and university curricula begun as a pilot program in the 1988-89 year.

While a collaborative approach to solving educational problems is not entirely unfamiliar in California, the excitement, interest, attention, and resources directed toward this model in the State over the last decade has placed it at the heart of the educational reform movement and made it a lynchpin in making progress on the State's educational equity agenda. As a result, this part of the report re-

views the nature of collaborative approaches in general -- drawing on examples from this study -- and then describes the directions that the student preparation programs examined in this study plan to take in the future in order to **expand the model** while, at the same time, **achieving their own goals**.

### The collaborative paradigm

At least in part, the rationale for this new paradigm is disappointment and frustration among educators generally with the inadequacies and ineffectiveness of the educational system, particularly with respect to lack of progress in achieving educational equity. Past efforts at fixing blame on one part of the total system for these problems -- such as blaming the community colleges for low transfer rates or blaming the high schools for differential levels of academic success as related to the socioeconomic status and racial-ethnic background of students -- have proven unproductive. As a consequence, educators are searching for ways to make progress on critical educational issues by interacting positively and productively with their colleagues across the boundaries of separate sectors of the educational system.

An important aspect of educational collaboration is its variety. Differences in collaborations were demonstrated throughout this study and are illustrative in pointing to variations along several dimensions.

- **Structure** Some collaborations are locally initiated and designed (CAPP, Cal-SOAP, and MESA), while others are based on a fairly prescribed structure (CRP, EAOP, and MC),
- **Focus** Some collaborations center on providing services directly to students (CATPP/AVID, Cal-SOAP, CRP, EAOP, MESA, MC, and UCO), while ACCESS and CAPP emphasize school-based change strategies,

- *Involvement* Some programs are a partnership between school districts and one postsecondary institution on the local level (ACCESS, CATPP/AVID, CRP, EAOP, MC, and UCO), while other programs involve a multiplicity of postsecondary institutions collaborating with school districts (CAPP, CalSOAP, and MESA),
- *Resource base* Several programs require a commitment of resources from each participating entity (ACCESS, CAPP, Cal-SOAP, MC, MESA), while other programs have a sponsoring institution that tends to absorb the cost associated with the collaboration (CRP, EAOP, UCO)

In the main, these differences -- either individually or in combination -- did not appear to be related to the collaboration's effectiveness in achieving its goals. This finding supports the stipulation that there is no one ideal collaborative model. Rather, there are variations on the theme with respect to organization, structure, resource base, and types of goals.

However, there are several important distinguishing characteristics of the collaborative paradigm -- at least five of which deserve examination, albeit brief, in this section.

- 1 Mutuality of interest among collaborators,
- 2 Emphasis on process,
- 3 Joint planning and implementation of activities,
- 4 Resource sharing, and
- 5 Opportunities for unintended outcomes

#### 1 *Mutuality of interest among collaborators*

The bedrock of the collaborative model is the enlightened self-interest of all collaborators which results in the establishment of mutual or complementary goals. In entering into this type of arrangement, schools can stipulate that colleges and universities assist them in providing educational advantages to the students that they are responsible for teaching. Concomitantly, postsecondary institutions are acknowledging that their success is dependent upon the academic and motivational preparation for college-level study that students bring to their campuses. This mutuality of interest leads to agreement on goals, that serve to undergird the development of collaborations, and to a commitment to engage in collaborative efforts. That is, a suc-

cessful collaboration involves at least three components: enlightened self-interest, complementary goals, and a commitment to pursue those goals cooperatively.

Despite this mutuality of interest, collaborations normally have goals that are non-institutionally specific. That is, pre-collegiate collaborations, such as those comprising this study, do not have as their objective the preparation of students for a particular campus or sector but instead for higher education in general. In that way, the goal is student-centered rather than institutionally-based, with the premise being that, as more students prepare for college work, all postsecondary institutions will gain from an increase in the eligible student pool.

In this model, then, students are the link between institutions, and their success is the paramount concern of all involved educators. That is, in this paradigm the flow of students along the educational continuum in an efficient manner is one of the defining criteria of success for the educational enterprise at large. This particular notion has encouraged collaboration across putative educational boundaries that, as a result, have become less immutable and more malleable than was true in the past.

#### 2 *Emphasis on process*

Establishing a long-term relationship among institutions and their representatives that is capable of responding to myriad challenges and opportunities is, in the long run, as significant an outcome in this paradigm as accomplishing any single goal. That is, the strength of the collaboration itself holds the promise for substantive educational improvements, while the specific products of the relationship represent the tangible evidence that the collaboration has vitality and is capable of achieving outcomes unattainable by institutions acting singularly.

A requisite ingredient in this model is the creation of cohesion and trust among the collaborators, and, ultimately, psychological ownership among each and every participant in the collaboration -- an ingredient necessitating a considerable commitment of time and energy. Developing this mutuality of trust and respect involves abandoning the presumption that college and university educators are superior to school teachers -- a stereotype that has long dominated the interaction between representatives

of these educational sectors. In reality, improving education -- and especially students' preparation for college -- requires the active engagement of educators at all levels with the underlying assumption being, and resultant behavior demonstrating, that all collaborators can learn and benefit from each other. Moreover, the assumption supporting the collaborative model is that only through the sharing of knowledge and experience can the major issues in education be addressed successfully. The California Academic Partnership Program (CAPP) exemplifies the centrality of this feature of collaboration among intersegmental student preparation programs, as do the Eisenhower Mathematics and Science State Grant Program and subject matter projects such as the California Writing Project and the California Math Project, among other intersegmental programs.

### 3 *Joint planning and implementation of activities*

Not only are goals mutually agreed upon in collaborative programs, under this model, each collaborator assumes responsibility for achieving those goals. A variety of formal and informal organizational structures, such as advisory and governing boards at both the local and statewide level, facilitate this sharing of responsibility. While no one structure is ideally suited to ensure shared responsibility, the creation of a mechanism that provides the opportunity to plan and implement activities mutually on behalf of the collaboration is essential in this model. Moreover, these organizational structures serve to ensure that leadership responsibilities are rotated and that no single institution or individual dominates the collaboration.

Jointly planning and implementing projects and activities to achieve mutually conceived goals is an occasion to develop a shared vocabulary based upon greater understanding of the variety of institutional prerogatives and values. Clearly, schools and postsecondary institutions -- as one set of distinct entities -- do not function similarly and they have different missions. Learning to accommodate those differences and, further, taking advantage of them strengthens the collaboration. Similar differences appear among postsecondary institutions, yet they are often beneficial in furthering collaborative goals. An example of this aspect of the model is the

Mathematics, Engineering, Science Achievement (MESA) program, in which faculty and staff of the California State University are often designated to work with MESA school advisors on the instructional aspects of the program -- as befits the State University's teaching mission -- while faculty and staff of the University of California often function as the researchers within the program.

### 4 *Resource sharing among collaborators*

A fundamental aspect of the collaborative model is resource sharing -- an asset at all times, but particularly in periods characterized by limits. In many ways, the willingness to contribute resources to a collaboration is tangible evidence of a commitment to the shared effort. Additionally, the joining of resources reduces the potential for duplication of effort among institutions as the need to engage in activities independently is reduced and limited funds are dedicated to the collaborative effort instead.

This report presents a plethora of examples of resource sharing. Indeed, for programs like the California Academic Partnership Program (CAPP), the California Student Opportunity and Access Program (Cal-SOAP), and the Mathematics, Engineering, Science Achievement (MESA) program, resource commitments from institutions is a statutory and/or administrative prerequisite to participation in the collaboration. In these instances, the State, schools, and postsecondary institutions -- both public and independent -- are significant resource-sharers in the collaboration. In the case of MESA, private corporations and foundations have joined the educational institutions by, literally, "putting their money where their mouths are."

### 5 *Opportunities for unintended outcomes*

Not all outcomes of any effort can be planned, let alone those that emerge from this paradigm which is premised on the synergy from the collaborative enterprise itself. The flexibility to identify and take advantage of serendipitous results -- indeed to incorporate them into future program designs -- is a hallmark of the collaborative model. Several unanticipated outcomes of significance were reported by the programs in this study and are illustrative of this aspect of the model.

- Employment as advisors or tutors for secondary school students participating in these programs appears to influence college students' career choices. While the College Readiness Program (CRP) specifically incorporates this outcome into its program design, participants in the California Academic Partnership Program (CAPP) and the California Student Opportunity and Access Program (Cal-SOAP) report that the opportunity provided by their programs for student employees to explore an educational career during college affects their later occupational decisions in this direction. Because many of these students are from backgrounds underrepresented in the educational profession, these programs thus contribute serendipitously to the achievement of the State's priority to diversify the faculty of schools and colleges.
- The presence of these programs has changed the curricular offerings and course enrollment patterns at participating schools. Staff of both the Alliance for Collaborative Change in Education in School Systems (ACCESS) and Mathematics, Engineering, Science Achievement (MESA) report that their schools have added high-level mathematics courses to their course schedules and that more students in these schools complete mathematics courses in the college preparatory sequence than do students generally.
- Concomitant with the general improvement in teaching offered at these schools, the quality and availability of information on the "college-going" process for all students at a school is enhanced through the presence of these programs.
- The existence of these programs at school sites contributed to the development of a critical mass of students preparing to attend college. For example, through "MESA periods" of the Mathematics, Engineering, Science Achievement project and through academic support classes of the California Student Opportunity and Access Program (Cal-SOAP), students with similar post-high school plans have the opportunity to develop networks and alliances that, in a period of intense peer pressure, support mutual achievement and college-bound aspirations. Staff of San Diego's Advancement via Individual Determination (AVID) program report that these goals have had a ripple effect on schools as a whole as more students have sought to participate in these activities.
- Collaborations that initially were directed at accomplishing a specific goal became catalysts for other collaborations. An example is the development of collaborations in the California Student Opportunity and Access Program (Cal-SOAP) involving school and university faculty around issues of curriculum and pedagogy that emerged as a consequence of receiving grants from the California Academic Partnership Program (CAPP). Prior to that time, Cal-SOAP involved primarily the admissions, student services, and counseling staffs from the participating institutions because the focus had been on outreach and information dissemination.

Often, collaborations have a "flywheel effect" in which once inertia is overcome, they expand to address myriad educational issues beyond the purview of a specific program or identified goal to be accomplished. For example, the Alliance for Collaborative Change in Education in School Systems (ACCESS) and the California Academic Partnership Program (CAPP) report that schoolwide efforts involving teachers, counselors, and administrators have developed from program-specific activities and that these efforts had been institutionalized as a means to ensure their continuance.

At the State level, the California Student Opportunity and Access Program (Cal-SOAP) and Mathematics, Engineering, Science Achievement (MESA) have established relationships and processes among a wide variety of educational institutions and other organizations in order to accomplish their program-specific objectives. Another statewide example of this collaborative approach is the recent effort by several of these programs that led to the Cooperative Outreach and Transfer Projects to encourage students in these programs who decided to go to community colleges to transfer to baccalaureate degree-granting institutions.

While many specific goals may be achievable by a campus or school acting independently, the collaborative nature of such programs holds the promise -- clearly realized by those programs in this study that have existed for a substantial period of time -- to enhance substantially the educational experience of all students and especially those from backgrounds historically underrepresented in postsecondary education.

## **Expected future directions of the programs in this study**

By March 15, 1992, the programs participating in this study will be submitting plans to the Governor and Legislature for expanding their efforts state-wide pursuant to Assembly Bill 3237 (Chacon, 1990). The Commission has the responsibility for reviewing and making recommendations about the direction that the State should take with respect to their specific plans. Therefore, this section is not intended to supplant that future discussion but instead summarize the general directions that these programs expect to pursue in the future.

Not surprisingly, administrators of the programs generally indicate that they intend to involve more school sites and serve more students in the future. Moreover, several express the expectation that they will provide a more comprehensive array of services -- many of which will be more instructional in nature as well as expansive in terms of the disciplines upon which they focus -- than in the past. Additionally, they will direct enhanced attention to institutionalization of the programs in the schools. But, the most frequently mentioned road that these programs expect to take in the future is toward greater collaboration among themselves and with other efforts that they perceive will accelerate progress in achieving educational equity goals. In particular, the College Readiness Program (CRP) and the Early Academic Outreach Program (EAOP) intend to initiate or solidify arrangements with the eight Subject Matter Projects authorized under Senate Bill 1882 in order to consolidate their student-centered activities with those projects' school improvement efforts of staff development for teachers in eight specific disciplines. Similarly, the Alliance for Collaborative Change in Education in School Systems (ACCESS) intends greater collaboration with existing student-centered programs in order to complement its technical assistance and staff development components. This intention emerges directly from the results of the Alliance's assessment as part of this study in which services directed to students were perceived by teachers and administrators to benefit the acceleration of student learning in the context of school-based change strategies aimed at curricular, instructional, and assessment practices. Finally, four projects -- ACCESS, CAPP, CRP, and

MESA - expect to intensify their efforts to involve the private sector in providing direct services to students.

An analysis of these future directions suggest that the collaborative paradigm is expanding in ways that were perhaps unanticipated but that are certainly promising. Indeed, this direction represents a significant change in mind set from earlier days in the development of the collaborative approach, when the programs were often as territorial as the institutions that they sought to coalesce around the collaboration. Thus, the programs in this study are not only expanding both in terms of their numbers and members within particular arrangements but they are also lessening their own parochial inclinations and gaining from the specific expertise of each other in the interest of achieving educational equity for California's students.

As such, an educational community premised on collaboration is developing, whereby individual students can be seen the focus of the educational community, surrounded by collaboration with a school, college, or university, the institutional level, the program level, the system level, and the State level. Conceivably, such concentric circles of collaboration could expand to include national and even international levels.

## **Summary**

The amount of enthusiasm and energy in California directed toward developing and maintaining collaborations among educational entities is high today, and sustaining that enthusiasm and energy seems to the Commission to be critically important in fulfilling the State's goals of educational equity. Nonetheless, the chances are equally high that California will miss this opportunity to benefit from the collaborative paradigm because old behaviors are particularly comfortable in difficult times such as this, when a dissonance exists between institutional missions and the resources needed to fulfill those missions. However, the importance of nurturing and implementing the collaborative model is best stated by the following excerpt from a report submitted by the director of one of the programs in this study when he was asked to compare the col-

laborative model with other approaches to addressing educational challenges

The question of whether intersegmental approaches to addressing the educational challenges facing California are better than other alternatives calls to mind Winston Churchill's characterization of democracy as the "worst form of government except all those other forms that have been tried from time to time." Intersegmentalism is slow, frail, inefficient, exasperating, wholly without style, and absolutely essential to solving the enormous challenges besetting our feudal educational systems. Though morally powerful, it is a political weakling wholly dependent upon the shifting priorities of the systems' leaders. Its greatest poten-

tial lies in the willing cooperation of strong, independent segments who perceive that their own welfare is linked to the welfare of the whole. The challenge for the state, it seems to me, is to keep public attention focused on the whole and to strengthen the hand of those committed to intersegmental approaches by increasing the incentives associated with it.

The Commission agrees with those sentiments, and it hopes that its conclusions and recommendations that constitute the first part of this report encourage further development of the collaborative paradigm that is contributing to progress in achieving myriad educational goals, especially those of educational equity.

# Appendix A

## SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access		Cal-		CRP	EAOP	MESA	Middle		
		CCPP	CAPP	SOAP	CATPP				College	UCO	
Alameda County											
Alameda City Unified											
Alameda High											
Chapman Middle											
Encinal High	013287						Y				
Island High											
Lincoln Middle											
Wood (Will C.) Middle											
Albany City Unified											
Albany High	013045						Y				
Albany Middle											
Macgregor High (Cont )											
Berkeley Unified											
Berkeley High	013117			Y			Y	Y		Y	
Columbus Intermediate	609018							Y			
East Campus, Berkeley High											
King Junior High	605685							Y			
Longfellow Intermediate	609029							Y			
Malcolm X Intermediate	609028							Y			
School of the Madeleine	697308						Y				
Willard Junior High	605686						Y	Y			
Castro Valley Unified											
Canyon Middle School											
Castro Valley High	013222						Y				
Redwood High											
Dublin Joint Unified											
Dublin High											
Valley High											
Wells Middle											
Emery Unified											
Emery High											
Fremont Unified											
American High											
Centerville Junior High											
Hopkins (William) Junior High											
Hornier (John M ) Junior High											
Irvington High	013427						Y				
Kennedy (John F ) High	013445						Y				
Mission San Jose High											
Robertson High											
Thornton Junior High											
Walters (G M ) Junior High											
Washington High											
Hayward Unified											
Brenkwitz High											
Bret Harte Intermediate	605693						Y				
Hayward High	013362						Y				
La Vista Intermediate	605694						Y				
Martin Luther King Intermediate	606647						Y				
Mt. Eden High	013531						Y				
Strobridge Elementary											
Sunset High	013820						Y				
Tennyson High	013833						Y				
Winton Intermediate	605697						Y				

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
Livermore Valley Joint Unified										
Del Valle Continuation High										
East Avenue Middle										
Granada High										
Junction Avenue Middle										
Lvermore High										
Vineyard High										
William Mendenhall Middle										
New Haven Unified										
Alvarado Middle	606826						Y			
Barnard-White Middle	605698					Y	Y			
El Rancho Verde High										
James Logan High	013466						Y			
New Haven Middle										
Newark Unified										
Churchill Continuation High										
Newark Junior High										
Newark Memorial High										
Newark Opportunity										
Oakland Unified										
Brewer (Edna) Junior High	605706					Y	Y	Y		
Bunche Center For Redirection										
Carter Middle	605710	Y						Y		
Castlemont Senior High	013209	Y		Y			Y	Y		Y
Claremont Middle	605700	Y					Y	Y		
Cox Elementary	600178							Y		
Dewey Senior High	013268									Y
Eastside Center For Redirection										
Elmhurst Middle	605701	Y								
Far West Senior High	013014						Y			Y
Foster Middle	600177	Y								
Fremont Senior High	013313	Y		Y			Y	Y		Y
Frick Junior High	605702	Y						Y		
Golden Gate Academy	014326						Y			
Hammariskjold (Dag) Opportunity										
Harte (Bret) Junior High	605699		Y	Y			Y			
Havenscourt Junior High	606586	Y								
Head-Royce School	014375						Y			
King Estates Junior High	606644	Y					Y			
Lowell Middle	605705	Y					Y	Y		
Madison Middle	606645	Y					Y	Y		
McClymonds Senior High	013479			Y			Y	Y		Y
Montera Junior High	605707						Y	Y		
Oakland Senior High	013590			Y			Y			Y
Oakland Technical Senior High	013605	Y	Y	Y			Y	Y		Y
Roosevelt Junior High	605708	Y								
Simmons (Calvin) Junior High	605703	Y		Y			Y			
Skyline Senior High	013794			Y			Y	Y		
Street Academy Senior High										
Westlake Junior High	605709	Y					Y			
Piedmont City Unified										
Piedmont Continuation High										
Piedmont High										
Piedmont Middle										
Pleasanton Unified										
Amador Valley High										
Foothill High										
Harvest Park Intermediate										
Village High										
San Leandro Unified										
Bancroft Junior High										
Lincoln High	013452						Y			
Muir (John) Junior High	606651						Y			
San Leandro High	013758						Y			
St Leander School	697063						Y			

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>San Lorenzo Unified</b>										
Arroyo High	013084							Y		
Bohannon High (Cont )										
Redwood Christian Junior-Senior High School	014048							Y		
San Lorenzo High	013781							Y		
Washington Manor Elementary										
<b>Amador County</b>										
<b>Amador County Unified</b>										
Amador County High										
Argonaut High										
Independence High										
Ione Junior High										
Jackson Junior High										
<b>Butte County</b>										
<b>Biggs Unified</b>										
Biggs Junior/senior High										
<b>Chico Unified</b>										
Bidwell Junior High										
Chico Junior High										
Chico Senior High										
Fairview High										
Pleasant Valley Senior High										
<b>Durham Unified</b>										
Durham High										
Durham Intermediate										
<b>Golden Feather Union Elementary</b>										
Concow Elementary										
<b>Gridley Union</b>										
Sycamore Elementary										
<b>Gridley Union High</b>										
Esperanza High (Cont)										
Gridley High										
<b>Oroville City Elementary</b>										
Central Elementary	600323			Y						
<b>Oroville Union High</b>										
Las Plumas High	043480			Y						
Oroville High										
Prospect High										
<b>Paradise Unified</b>										
Paradise Intermediate										
Paradise Senior High										
Ridgeview High										
<b>Calaveras County</b>										
<b>Bret Harte Union High</b>										
Bret Harte Union High										
Vallecito Continuation High										
<b>Calaveras Unified</b>										
Calaveras High										
Gold Strike High										
Toyon Middle										
West Point High										
<b>Colusa County</b>										
<b>Colusa Unified</b>										
Colusa High										
Egling (George T ) Middle										
Personalized Instruction Center										
<b>Maxwell Unified</b>										
Maxwell High										
<b>Pierce Joint Unified</b>										
Lloyd G Johnson Junior High										
Pierce High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Williams Unified</b>										
Williams High										
Williams Middle										
<b>Contra Costa County</b>										
<b>Acalanes Union High</b>										
Acalanes High										
Campolindo High										
Del Oro High (Cont)										
Las Lomas High										
Miramonte High	073424							Y		
<b>Antioch Unified</b>										
Antioch High										
Antioch Junior High	605717							Y		
Antioch Unified Alternative Education										
Live Oak High										
Park Junior High										
Prospects High										
<b>Brentwood Union</b>										
Edna Hill Elementary										
<b>John Swett Unified</b>										
Garretson Middle										
John Swett High										
Willow High										
<b>Lafayette Elementary</b>										
M H Stanley Intermediate										
<b>Liberty Union High</b>										
La Paloma High (Cont )										
Liberty High										
<b>Martinez Unified</b>										
Alhambra Senior High	073054							Y		
Martinez High										
Martinez Junior High										
<b>Moraga Elementary</b>										
Joaquin Moraga Intermediate										
<b>Mt. Diablo Unified</b>										
Clayton Valley High										
College Park High										
Concord High										
El Dorado Intermediate										
Foothill Middle										
Glenbrook Middle										
Mt Diablo High	073456							Y		
Northgate High										
Oak Grove Middle										
Olympic Continuation High										
Pine Hollow Intermediate										
Riverview Middle										
Sequoia Elementary										
Sequoia Middle										
Valley View Middle										
Ygnacio Valley High	073780							Y		
<b>Oakley Union Elementary</b>										
O'Hara Park Middle										
Oakley Elementary										
<b>Orinda Union Elementary</b>										
Orinda Intermediate	600447							Y		
<b>Pittsburg Unified</b>										
Central Junior High										
Hillview Junior High										
Marina High										
Pittsburg Senior High										
Riverside High (Cont )										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
Richmond Unified										
Adams Middle	605720						Y			
Crespi Junior High	606117						Y		Y	
De Anza Senior High	073216						Y		Y	
El Cerrito Senior High	073294						Y		Y	
Gompers (Samuel) Continuation										
Helms Junior High	605722						Y		Y	
Kennedy High	073365						Y	Y	Y	
Middle College High										
North Campus Continuation										
Pinole Junior High	605723									Y
Pinole Valley High	073531						Y		Y	
Portola Junior High	605724					Y	Y		Y	
Richmond High	073590						Y		Y	
St. Cornelius Elementary	696992						Y			
St. David's Elementary	697244						Y			
St. John The Baptist	696769						Y			
San Ramon Valley Unified										
California High										
Charlotte Wood Intermediate										
Del Amigo High										
Los Cerros Middle										
Monte Vista High										
Pine Valley Intermediate										
San Ramon Valley High										
St. Isidore Elementary	697245							Y		
Walnut Creek Elementary										
Walnut Creek Intermediate										
Del Norte County										
Del Norte County Unified										
Crescent Elk Elementary										
Del Norte High										
Sunset High										
El Dorado County										
Black Oak Mine Unified										
Divide High										
Golden Sierra High										
Buckeye Union Elementary										
Camarado Springs Intermediate										
El Dorado Union High										
Diamond Continuation High										
El Dorado High										
Independence Continuation										
Oak Ridge High										
Ponderosa High										
Pondorado Alternative Education										
Lake Tahoe Unified										
Mt. Tallac High (Cont.)										
South Tahoe High										
South Tahoe Middle										
Mother Lode Union Elementary										
Green (Herbert C.) Elementary										
Placerville Union Elementary										
Markham (Edwin) Elementary										
Pollock Pines Elementary										
Sierra Ridge Middle										
Rescue Union Elementary										
Marina Village Intermediate										
Rescue Elementary										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Access		Cal-			Middle		
	Code	CCPP	CAPP	SOAP	CATPP	CRP	EAOP	MESA College UCO
<b>Fresno County</b>								
<b>Caruthers Union High</b>								
Caruthers High								
Marc High (Cont )								
<b>Central Unified</b>								
Central High								
El Capitan Elementary								
Pershing High (Cont )								
<b>Clovis Unified</b>								
Clark Intermediate								
Clovis High	103105							Y
Clovis West High	103019							Y
Gateway High (Cont)								
Kastner Intermediate								
<b>Coalinga/Huron Joint Unified</b>								
Cambridge High								
Coalinga High								
Coalinga Junior High								
<b>Firebaugh-Las Deltas Unified</b>								
El Puente High (Cont)								
Firebaugh High								
Firebaugh Junior High								
<b>Fowler Unified</b>								
Casa Blanca Continuation								
Fowler High								
Fremont Elementary								
<b>Fresno Unified</b>								
Ahwahnee Middle								
Bullard Continuation								
Bullard High								
Cooper Middle								
Dewolf Continuation High								
Duncan (Erma) Polytechnical High								
Edison High	103189						Y	Y
Fort Miller Middle	605729						Y	
Fresno Continuation High								
Fresno High	103250						Y	Y
Herbert Hoover High	103291							Y
Hoover Continuation								
Kings Canyon Middle	605732						Y	Y
McLane Continuation								
McLane High	103421						Y	
Opportunity (Continuation)								
Roosevelt High	103583						Y	Y
Scandinavian Middle	600648					Y	Y	
Sequoia Freshman	605733						Y	
Tehupite Middle	608853					Y		
Tenaya Middle								
Tioga Middle								
Wawona Middle								
Yosemite Middle	606120						Y	
<b>Kerman Unified</b>								
Kerman High								
Kerman Junior High								
Nova High (Cont.)								
<b>Kings Canyon Joint Unified</b>								
Citrus Elementary								
General Grant Elementary								
Kings Canyon Continuation								
Navelencia Elementary								
Reedley High								
<b>Kingsburg Joint Union Elementary</b>								
Roosevelt Elementary								

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Kingsburg Joint Union High</b>										
Kingsburg High										
Oasis Continuation High School										
<b>Laton Joint Unified</b>										
Conejo Elementary										
Laton High										
Oak View Continuation High										
<b>Oro Loma Elementary</b>										
Oro Loma Elementary	600701		Y							
<b>Parlier Unified</b>										
Martinez (John C.) Junior High										
Parlier High	103499							Y		
San Joaquin Valley High (Cont										
<b>Riverdale Joint Union Elementary</b>										
Riverdale Elementary										
<b>Riverdale Joint Union High</b>										
Horizon Continuation High										
Riverdale High										
<b>Sanger Unified</b>										
Kings River High										
Sanger High	103609						Y	Y	Y	
Washington Junior High	600720					Y	Y	Y		
<b>Selma Unified</b>										
Heartland High (Cont)										
Roosevelt Junior High										
Selma High	103667								Y	
<b>Sierra Joint Union High</b>										
Sandy Bluffs Education Center										
Sierra High	103693							Y		
Willow Creek Education Center										
<b>Tranquillity Union High</b>										
El Portal High										
Rio De Plata High										
Rio Del Rey High										
Tranquillity High										
<b>Washington Union High</b>										
Easton Continuation High										
Washington High	103830							Y		
<b>West Fresno Elementary</b>										
West Fresno Middle	600661							Y		
<b>Glenn County</b>										
<b>Hamilton Union High</b>										
Community High (Cont)										
Hamilton Union High										
<b>Orland Joint Union Elementary</b>										
Price Intermediate										
<b>Orland Joint Union High</b>										
North Valley High (Cont.)										
Orland High										
<b>Princeton Joint Unified</b>										
Princeton Junior-Senior High										
<b>Stony Creek Joint Unified</b>										
Elk Creek Alternative										
Elk Creek Junior-Senior High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	CCPP	CAPP	Cal-SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Willows Unified</b>											
Willows Community High											
Willows High											
Willows Intermediate											
<b>Humboldt County</b>											
<b>Arcata Elementary</b>											
Sunny Brae Middle											
<b>Eureka City High</b>											
Barnum (Zoe) High											
Eureka Senior High											
Winship Junior High											
Zane (Catherine L.) Junior High											
<b>Ferndale Union High</b>											
Ferndale High											
<b>Fortuna Union Elementary</b>											
Fortuna Elementary											
<b>Fortuna Union High</b>											
East High (Cont)	123335								Y		
Fortuna Union High											
<b>Klamath-Trinity Joint Unified</b>											
Captain John Continuation											
Hoop Valley High											
<b>Northern Humboldt Union High</b>											
Arcata High											
McKinleyville High											
Pacific Coast High											
Tsurai High											
<b>Southern Humboldt Joint Unified</b>											
Continuation Classes											
Miranda Junior High											
South Fork High											
<b>Imperial County</b>											
<b>Brawley Elementary</b>											
Worth (Barbara) Junior High	600826								Y		
<b>Brawley Union High</b>											
Brawley High	133140								Y		
Desert Valley High											
<b>Calexico Unified</b>											
Aurora High											
Calexico High	133220								Y		
De Anza Junior High	600833								Y		
<b>Calipatria Unified</b>											
Calipatria High	133250								Y		
Fremont Primary	610353								Y		
Midway High											
<b>Central Union High</b>											
Central High											
Park Avenue High											
<b>El Centro Elementary</b>											
Kennedy Middle	600844								Y		
Wilson Junior High	600849								Y		
<b>Holtville Unified</b>											
Holtville High	133530								Y		
Holtville Junior High	600852								Y		
Sam Webb Continuation											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Imperial Unified</b>										
Imperial Avenue High										
Imperial High	133590								Y	
Wright (Frank M ) Elementary	600856								Y	
<b>Meadows Union Elementary</b>										
Meadows Elementary	600861								Y	
<b>San Pasqual Valley Unified</b>										
Bill M Manes High										
San Pasqual Junior High										
San Pasqual Valley High										
<i>Inyo County</i>										
<b>Big Pine Unified</b>										
Big Pine Elementary										
Big Pine High										
<b>Bishop Joint Union High</b>										
Bishop High										
Palisade Glacier High										
<b>Bishop Union Elementary</b>										
Home Street Middle										
<b>Death Valley Unified</b>										
Death Valley High										
<b>Lone Pine Unified</b>										
Lone Pine High										
<b>Owens Valley Unified</b>										
Owens Valley High										
<i>Kern County</i>										
<b>Arvin Union Elementary</b>										
Haven Drive Intermediate										
Haven Drive Junior High										
<b>Bakersfield City Elementary</b>										
Chipman Junior High	600884								Y	
Compton Junior High	600902								Y	
Curran Junior High	600900								Y	
Emerson Junior High	600891								Y	
Sierra Junior High	600915								Y	
Washington Junior High	600917								Y	
<b>Beardsley Elementary</b>										
Beardsley Junior High										
<b>Delano Joint Union High</b>										
Delano High	153167				Y				Y	
Valley High/Outreach										
<b>Delano Union Elementary</b>										
Cecil Avenue Junior High										
<b>Edison Elementary</b>										
Edison Senior Elementary										
<b>Fairfax Elementary</b>										
Fairfax Elementary	600949								Y	
<b>Fruitvale Elementary</b>										
Fruitvale Junior High										
<b>Greenfield Union</b>										
Greenfield Junior High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Kern Union High</b>										
Arvin High	153025						Y	Y		
Bakersfield High	153070						Y	Y		
Central Valley Cont High										
East Bakersfield High	153229							Y		
Foothill High	153260						Y	Y		
Highland High	153333						Y			
Kern Valley High										
North High										
Nueva Continuation High										
Phoenix Learning Center										
Shafter High	153508						Y	Y		
South High	153539						Y	Y		
Special Services/Constellation										
Summit Continuation										
Vista East Continuation										
Vista High (Cont )	153632				Y					
Vista West Continuation										
West High	153660						Y	Y		
<b>Kernville Union Elementary</b>										
Wallace (Woodrow W ) Junior High										
<b>Lamont Elementary</b>										
Mountain View Middle										
<b>Lost Hills Union Elementary</b>										
Lost Hills Middle										
<b>Mancopa Unified</b>										
Mancopa High										
<b>McFarland Unified</b>										
McFarland High										
McFarland Middle										
San Joaquin High										
<b>Mojave Unified</b>										
Joshua Middle										
Mojave Senior High										
Mountain View High School										
<b>Muroc Joint Unified</b>										
Boron Junior-Senior High										
Desert Junior-Senior High										
Forbes Avenue Elementary										
North Edwards High										
<b>Norris Elementary</b>										
Norris Middle										
<b>Panama Buena Vista Union</b>										
Actis (OJ ) Junior High										
Tevis Junior High										
Thompson (Fred L.) Junior High										
<b>Richland-Lerdo Elementary</b>										
Richland Intermediate										
Richland Senior Elementary	601000							Y		
<b>Rosedale Union Elementary</b>										
Rosedale Elementary										
<b>Sierra Sands Unified</b>										
Burroughs High										
James Monroe Junior High										
Mesquite Continuation High										
Murray Junior High										
<b>Southern Kern Unified</b>										
Hamilton Junior High										
Rare Earth High										
Rosamond High										
<b>Standard Elementary</b>										
Standard Junior High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Taft City Elementary</b>										
Lincoln Elementary										
<b>Taft Union High</b>										
Buena Vista High (Cont )	153013							Y		
Taft Union High										
<b>Tehachapi Unified</b>										
Jacobsen Junior High										
Monroe High										
Tehachapi High										
<b>Vineland Elementary</b>										
Sunset Elementary										
<b>Wasco Union Elementary</b>										
Thomas Jefferson Elementary										
<b>Wasco Union High</b>										
Wasco High										
Westside High (Cont.)										
<b>Kings County</b>										
<b>Armona Union Elementary</b>										
Parkview Elementary										
<b>Corcoran Joint Unified</b>										
Corcoran High										
John Muir Middle										
Kings Lake High										
<b>Hanford Elementary</b>										
Wilson (Woodrow) Elementary	601045							Y		
<b>Hanford Joint Union High</b>										
Hanford High	163440							Y	Y	
Hanford High Night Cont.										
Johnson (Earl F ) High (Cont.)										
<b>Lemoore Union High</b>										
Lemoore High	163560							Y		
South Lemoore High (Cont.)										
<b>Reef-Sunset Unified</b>										
Avenal High										
Sunrise High										
<b>Lake County</b>										
<b>Kelseyville Unified</b>										
K C High (Cont.)										
Kelseyville High										
Mountain Vista Middle										
<b>Konocti Unified</b>										
Carle' (William C.) High										
Lower Lake High										
Oak Hill Middle										
<b>Lakeport Unified</b>										
Clear Lake High										
Natural High (Cont.)										
Terrace Elementary										
<b>Middletown Unified</b>										
Cannon (Minnie) Elementary										
Loconoma Valley High (Cont )										
Middletown High										
Middletown Middle										
<b>Upper Lake Union High</b>										
Clover Valley High										
Upper Lake High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Access		Cal-			Middle		
	Code	CCPP	CAPP	SOAP	CATPP	CRP	EAOP	MESA College UCO
<b>Lassen County</b>								
<b>Big Valley Joint Unified</b>								
Big Valley High								
Big Valley Intermediate								
Gateway High								
<b>Port Sage Unified</b>								
Fort Sage Middle								
Herlong High								
Render High (Cont )								
<b>Lassen Union High</b>								
Credence High (Cont)								
Lassen High								
<b>Susanville Elementary</b>								
Diamond View Elementary								
<b>Westwood Unified</b>								
Westwood High								
<b>Los Angeles County</b>								
<b>ABC Unified</b>								
Artesia High	193036				Y			
Carmenita Junior High								
Cerritos High	193005						Y	
Gahr High								
Haskell Junior High								
Killingsworth Junior High	606123				Y			
Ross (Faye) Junior High								
Tetzlaff (Martin B ) Junior High								
Tracy (Wilbur) High (Cont )								
Whitney (Gretchen) High								
<b>Alhambra City High</b>								
Alhambra High								
Century High (Cont)								
Independence High								
Mark Keppel High								
San Gabriel High								
<b>Antelope Valley Union High</b>								
Antelope Valley High								
Desert Winds Continuation High								
Highland High								
Littlerock High								
Palmdale High								
Quartz Hill High								
<b>Arcadia Unified</b>								
Arcadia Senior High								
Dana (Richard Henry) Junior High								
First Avenue Junior High								
Foothills Junior High								
Huntington High								
Rancho High								
<b>Azusa Unified</b>								
Alternative Learning Center (Cont )								
Azusa High								
Center Intermediate								
Foothill Middle								
Gladstone High	193344						Y	
Sierra High								
Slauson Intermediate								

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Access		Cal-			Middle		
	Code	CCPP	CAPP	SOAP	CATPP	CRP	EAOP	MESA College UCO
<b>Baldwin Park Unified</b>								
Baldwin Park High								
Charles D Jones Junior High								
Holland (Jerry D ) Junior High								
North Park Continuation High								
Olive Junior High								
Sierra Vista High								
Sierra Vista Junior High								
<b>Bassett Unified</b>								
Bassett Senior High								
Edgewood Middle								
Nueva Vista Continuation High								
Torch Middle								
<b>Bellflower Unified</b>								
Bellflower High								
Mayfair High								
Somerset Continuation High								
<b>Beverly Hills Unified</b>								
Beverly Hills Continuation High								
Beverly Hills High								
<b>Bonita Unified</b>								
Bonita High	193108						Y	
Chaparral High								
Lone Hill Intermediate								
Ramona Intermediate								
San Dumas High								
<b>Burbank Unified</b>								
Burbank Senior High								
Burroughs Senior High								
Jordan Junior High								
Luther Burbank Junior High								
Monterey High								
Muir Junior High								
<b>Castaic Union</b>								
Castaic Middle								
<b>Centinela Valley Union High</b>								
Hawthorne High								
Leuzinger High								
Lloyde (R. K.) High								
<b>Charter Oak Unified</b>								
Arrow High								
Charter Oak High								
Royal Oak Intermediate								
<b>Claremont Unified</b>								
Claremont High								
El Roble Intermediate								
San Antonio High								
<b>Compton Unified</b>								
Bunche Middle	605755						Y	Y
Centennial High	193156						Y	Y
Compton Senior High	193196						Y	Y
Davis Middle	606673			Y				
Dominguez High	193232						Y	Y
Enterprise Middle	605756						Y	
Roosevelt Middle	606126						Y	
Vanguard Middle	605757						Y	
Walton Middle	606127							Y
Whaley Middle	605758						Y	Y
Willowbrook Middle	605759						Y	

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Access		Cal-					Middle	
	Code	CCPP	CAPP	SOAP	CATPP	CRP	EAOP	MBSA	College UCO
<b>Covina-Valley Unified</b>									
Covina High									
Fair Valley High									
Las Palmas Intermediate									
Northview High									
Sierra Vista Intermediate									
South Hills High									
Traweek Intermediate									
<b>Culver City Unified</b>									
Culver City Middle									
Culver City Senior High									
Culver Park Continuation High									
<b>Downey Unified</b>									
Columbus Continuation									
Downey High									
East Middle									
Griffiths Middle									
South Middle									
Warren High									
West Middle									
<b>Duarte Unified</b>									
Andres Duarte Elementary									
Duarte High									
Mt Olive Continuation High									
Northview Intermediate									
<b>East Whittier City Elementary</b>									
East Whittier Middle									
Granada Middle									
Hillview Middle									
<b>Eastside Union Elementary</b>									
Cole (Gifford C ) Middle									
<b>El Monte Union High</b>									
Arroyo High									
El Monte High	193266					Y			
Mountain View High	193268					Y			
Rosemead High									
Valle Lido Continuation High									
<b>El Rancho Unified</b>									
Burke (Osburn) Middle									
El Rancho High	193270						Y	Y	
North Park Middle									
Rivera Middle									
Salazar (Ruben) Continuation									
<b>El Segundo Unified</b>									
Arena High School									
El Segundo High									
El Segundo Middle									
<b>Garvey Elementary</b>									
Garvey (Richard) Intermediate									
Temple (Roger W ) Intermediate									
<b>Glendale Unified</b>									
Crescenta Valley Senior High									
Daily (Allan F ) High									
Glendale Senior High									
Hoover (Herbert) Senior High									
Roosevelt (Theodore) Junior Hi									
Rosemont Junior High									
Toll (Eleanor J ) Junior High									
Wilson (Woodrow) Junior High									
<b>Glendora Unified</b>									
Glendora High									
Goddard Middle									
Sandburg Middle									
Whitcomb Continuation High									

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	CCPP	CAPP	Cal- SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
Hacienda La Puente Unified											
Cedarlane Junior High											
La Puente High											
Los Altos High											
Newton Intermediate											
Orange Grove Intermediate											
Puente Hills High											
Sparks Intermediate											
Valley Continuation High											
Wilson (Glen A.) High											
Workman (William) High											
Hawthorne Elementary											
Hawthorne Intermediate	601396									Y	
Yukon Intermediate	601402									Y	
Hermosa Beach City Elementary											
Hermosa Valley											
Inglewood Unified											
Crozier (George W ) Junior High	605774						Y	Y			
Hillcrest High											
Inglewood High	193423				Y			Y	Y		Y
La Tijera Elementary	601451								Y		
Lane (Warren) Elementary	601452								Y		
Monroe (Albert F ) Junior High	605775						Y				
Morningside High	193604				Y			Y	Y		Y
Parent (Frank D ) Elementary	601454								Y		
Keppel Union Elementary											
Almondale Middle											
La Canada Unified											
La Canada Continuation											
La Canada High											
Lancaster Elementary											
Park View Intermediate											
Plute Intermediate											
Las Virgenes Unified											
Agoura High											
Calabasas High											
Indian Hills Continuation High											
Lindero Canyon Middle											
Wright (Arthur E ) Middle											
Lawndale Elementary											
Rogers (Will) Intermediate											
Lennox Elementary											
Lennox Middle	610673						Y				
Little Lake City Elementary											
Lake Center Elementary											
Lakeside Elementary											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CAPP	Cal- SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Long Beach Unified</b>									
Avalon Junior-Senior High									
Bancroft Junior High	606133					Y			
California Academy of Mathematics & Science									
Demile Middle	605777					Y			
Franklin Middle	606134							Y	
Hamilton Middle									
Hill Junior High									
Hoover Junior High									
Hughes Middle									
Jefferson Middle									
Jordan High	193447					Y			
Lakewood High	193467					Y			
Lindbergh Middle	605781					Y			
Marshall Junior High	605782					Y			
Millikan Senior High	193575		Y			Y			
Polytechnic High	193694					Y			
Reid Senior High									
Rogers Junior High									
Stanford Junior High									
Stephens Junior High									
Washington Middle									
Wilson High	193987		Y			Y			
<b>Los Angeles County Schools</b>									
<b>L. A. County High School for the Arts</b>									
<b>Los Angeles Unified</b>									
Adams (John) Junior High	605785							Y	
Addams (Jane) Continuation									
Aggeler (William Tell) Junior									
Aliso High									
Angel's Gate									
Audubon Junior High	606139					Y			
Avalon Continuation									
Bancroft (Hubert Howe) Junior									
Banning (Phineas) Senior High	193065					Y	Y		
Bell Senior High	193086		Y				Y		
Belmont Senior High	193092					Y	Y		
Belvedere Junior High	605788					Y	Y		
Berendo Junior High									
Bethune (Mary Mcleod) Junior High	605814					Y		Y	
Birmingham Senior High	193104					Y			
Boyle Heights Continuation									
Burbank (Luther) Junior High	605789					Y			
Burroughs (John) Junior High									
Byrd (Richard E.) Junior High	605790				Y				
Canoga Park Senior High	193147					Y			
Carnegie (Andrew) Junior High									
Carson Senior High									
Carver (George Washington) Junior High	605792					Y			
Central Continuation									
Chatsworth Senior High	193170					Y			
Cheviot Hills Continuation									
Clay (Henry) Junior High	606142							Y	
Cleveland (Grover) High	193186					Y			
Columbus (Christopher) Junior									
Cooper (James Fenimore) High									
Crenshaw Senior High	193212					Y			
Curtiss (Glenn Hammond) Junior	606629				Y				
Dana (Richard Henry) Junior High									
Del Rey Continuation									
Dodson (Rudecinda Sepulveda) Junior High									
Dorsey (Susan Miller) Senior High	193238					Y	Y		
Downtown Business High									
Drew (Charles) Junior High	605796					Y	Y		
Eagle Rock Junior-Senior High									
Eagle Tree Continuation									
Earhart (Amelia) Continuation									
Edison (Thomas A.) Junior High	606144					Y	Y		
Emstein (Albert) Continuation									
El Camino Real Senior High	193262					Y			

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Los Angeles Unified</b>										
El Sereno Junior High	606843						Y			
Ellington (Duke) High										
Emerson (Ralph Waldo) Junior High										
Evergreen Continuation										
Fairfax Senior High										
Fleming (Alexander) Junior High										
Foshay (James A.) Junior High	606145						Y	Y		
Francis (John H.) Polytechnic	193298							Y		
Franklin (Benjamin) Senior High	193304						Y			
Fremont (John C.) Senior High	193311						Y		Y	
Frost (Robert) Junior High										
Fulton (Robert) Junior High										
Gage (Henry T.) Junior High	606146						Y	Y		
Gardena Senior High										
Garfield (James A.) Senior High	193338						Y			
Gompers (Samuel) Junior High	605802						Y		Y	
Granada Hills Senior High	193374						Y			
Grant (Ulysses S.) Senior High	193379						Y			
Grey (Zane) Continuation										
Griffith (David Wark) Junior High										
Hale (George Ellery) Junior High										
Hamilton (Alexander) Senior High										
Harte (Bret) Junior High	605804					Y				
Henry (Patrick) Junior High										
Highland Park Continuation										
Hollenbeck Junior High	605805						Y	Y		
Hollywood Senior High										
Holmes (Oliver Wendell) Junior										
Hope (John) Continuation										
Huntington Park Senior High	193415						Y	Y		
Independence Continuation										
Indian Springs Continuation										
Irving (Washington) Junior High	605807							Y		
Jefferson (Thomas) Senior High	193437						Y	Y		
Johnson (Dorothy V.) High										
Jordan (David Starr) Senior High	193445						Y		Y	
Kennedy (John F.) High	193994						Y			
King (Thomas Starr) Junior High										
King/Drew Health High										
Lawrence (Ernest) Junior High										
Le Conte (Joseph) Junior High										
Leonis (Miguel) Continuation										
Lewis (Robert H.) Continuation										
Lincoln (Abraham) Senior High	193512						Y	Y		
Lincoln Medical Magnet High										
Locke (Alain Leroy) Senior High	193515						Y	Y	Y	
London (Jack) Continuation										
Los Angeles Center For Enrichment										
Los Angeles Senior High	193535						Y	Y		
Maclay (Charles) Junior High	605810					Y				
Madison (James) Junior High										
Mann (Horace) Junior High	605811			Y			Y		Y	
Manual Arts Senior High	193551						Y	Y		
Manna Dei Rey Junior High										
Mark Twain Junior High	605813						Y			
Markham (Edwin) Junior High	606152						Y		Y	
Marshall (John) Senior High	193556							Y		
Metropolitan Continuation										
Middle College High										
Millikan (Robert A.) Junior High										
Mission Continuation										
Moneta Continuation										
Monroe (James) High	193586						Y			
Monterey Continuation										
Mt. Gleason Junior High										
Mt. Lukens Continuation										
Mt. Vernon Junior High	606153						Y			
Muir (John) Junior High	605817					Y		Y	Y	
Mulholland (William) Junior High										
Narbonne (Nathaniel) Senior High										
Newmark (Harris) Continuation										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPT	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Los Angeles Unified</b>										
Nightingale (Florence) Junior	605819						Y	Y		
Nimitz (Chester W ) Junior High										
Nobel (Alfred Bernhard) Junior										
North Hollywood Senior High	193635						Y			
Northridge Junior High										
Odyssey Continuation										
Olve Vista Junior High	606155					Y		Y		
Owens (Jessie) Opportunity Center										
Owensmouth Continuation										
Pacoima Junior High	605821					Y				
Palisades Senior High	193656						Y			
Palms Junior High	605822						Y			
Parkman (Francis) Junior High										
Patton (George S ) Continuation										
Peary (Robert E.) Junior High	606157								Y	
Phoenix Continuation										
Porter (George K.) Junior High										
Portola (Gaspar De) Junior High										
Pueblo De Los Angeles Continuation										
Ramona Junior-Senior High										
Reed (Walter) Junior High										
Region B Opportunity										
Reseda Senior High	193722						Y			
Revere (Paul) Junior High										
Riley (Thomas) High										
Rodia (Simon) Continuation										
Rogers (Will) Continuation										
Roosevelt (Theodore) Senior High	193742						Y	Y		
San Antonio Continuation										
San Fernando Junior High	605828					Y		Y		
San Fernando Senior High	193762						Y	Y		
San Pedro Senior High										
Sepulveda (Francisco) Junior High										
Sherman Oaks Center For Enriched Studies										
South Gate Junior High	605830						Y			
South Gate Senior High	193830							Y		
Stevenson (Robert Louis) Junior	605831						Y			
Stoney Point Continuation										
Sun Valley Junior High	606160						Y			
Sutter (John A ) Junior High										
Sylmar Senior High	193855							Y		
Taft (William Howard) Senior High	193861						Y			
Temescal Canyon Continuation										
Thoreau (Henry David) Continuation										
Tri-C Opportunity										
Truth (Sojourner) Continuation										
University Senior High	193888						Y			
Van Nuys Junior High										
Van Nuys Senior High	193896						Y			
Venice Senior High	193904						Y	Y		
Verdugo Hills Senior High										
View Park Continuation										
Vintage Street Fund. Elem										
Virgil Junior High										
Washington (George) Senior High	193930						Y	Y	Y	
Webster (Daniel) Junior High										
West Granada Continuation										
West Hollywood Opportunity										
Westchester Senior High	193947						Y			
White (Stephen M ) Junior High										
Whitman Continuation										
Wilmington Junior High	605837						Y			
Wilson (Woodrow) Senior High	193985						Y	Y		
Wright (Orville) Junior High										
Young (Whitney) Continuation										
<b>Los Nietos Elementary</b>										
Los Nietos Middle	602009			Y						
<b>Lowell Joint Elementary</b>										
<b>Rancho-Starbuck Intermediate</b>										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Lynwood Unified</b>										
Hosler (Fred W ) Junior High	605839						Y	Y		
Lynwood High	193543						Y	Y		
Vista High (Continuation)										
<b>Manhattan Beach City Elementary</b>										
Manhattan Beach Intermediate										
<b>Monrovia Unified</b>										
Canyon High										
Clifton Middle										
Monrovia High										
Santa Fe Middle										
<b>Montebello Unified</b>										
Bell Gardens High										
Bell Gardens Intermediate										
Eastmont Intermediate										
La Merced Intermediate										
Macy Intermediate										
Montebello High	193599						Y			
Montebello Intermediate										
Schurr High										
Suva Intermediate										
Vail High										
<b>Mountain View Elementary</b>										
Baker Elementary										
Kranz (Charles T ) Intermediate										
<b>Norwalk-La Mirada Unified</b>										
El Camino High										
Glen (John H ) High	193364						Y	Y		
La Mirada High										
Norwalk High										
<b>Palmdale Elementary</b>										
Juniper Intermediate										
Sage Intermediate										
<b>Palos Verdes Peninsula Unified</b>										
Malaga Cove Intermediate										
Miraleste High										
Palos Verdes High										
Rancho Del Mar High										
Ridgecrest Intermediate										
Rolling Hills High										
<b>Paramount Unified</b>										
Alondra Intermediate										
Clearwater Intermediate	605845						Y			
Michelson Continuation										
Paramount High	193674						Y			
<b>Pasadena Unified</b>										
Blair High	193106		Y						Y	
Ehot Middle	605846								Y	
Marshall Fundamental	193167		Y							
Muir High	193610		Y				Y		Y	
Pasadena Continuation High										
Pasadena High	193682		Y				Y		Y	
Roosevelt										
Washington Middle	602175								Y	
Wilson Middle	605849								Y	
<b>Pomona Unified</b>										
Emerson Junior High	605850						Y		Y	
Fremont Junior High	606163						Y		Y	
Ganesha Senior High	193317						Y		Y	
Garey Senior High	193332						Y		Y	
Lorbeer Junior High	606678						Y		Y	
Marshall (John) Junior High	605851						Y		Y	
Palomares Junior High	606164						Y		Y	
Park West High										
Pomona Senior High	193702						Y		Y	
Simons Junior High	605852						Y		Y	

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Redondo Beach City Elementary</b>										
Adams Middle										
Parras (Nick G ) Middle										
<b>Rosemead Elementary</b>										
Muscatel Intermediate										
<b>Rowland Unified</b>										
Alvarado Intermediate										
Giano Intermediate										
Nogales High										
Rincon Intermediate										
Rowland (John A ) High										
Santana High										
<b>San Gabriel Elementary</b>										
Jefferson Intermediate	602243								Y	
<b>San Marino Unified</b>										
Huntington Intermediate										
San Marino High										
<b>Santa Monica-Malibu Unified</b>										
Adams (John) Middle	605853								Y	
Lincoln Middle										
Olympic High										
Santa Monica High	193800								Y	
<b>Soledad-Agua Dulce Union Elementary</b>										
High Desert										
<b>South Bay Union High</b>										
Mira Costa High										
Pacific Shores High										
Redondo High										
<b>South Pasadena Unified</b>										
South Pasadena Continuation										
South Pasadena Junior High										
South Pasadena Senior High										
<b>South Whittier Elementary</b>										
Monte Vista Middle										
South Whittier Intermediate										
<b>Temple City Unified</b>										
Oak Avenue Intermediate										
Temple City High										
<b>Torrance Unified</b>										
Calle Mayor Middle										
Casimir Middle										
Hull (J H ) Middle										
Lynn (Bert M ) Middle										
Madrona Middle										
Magruder (Philip) Middle										
North High										
Shery (Kurt T ) High										
South High										
Torrance High										
West High										
<b>Valle Lindo Elementary</b>										
Dean L Shively										
<b>Walnut Valley Unified</b>										
Chaparral Middle										
Del Paso High										
Diamond Bar High										
South Pointe Middle										
Suzanne Middle										
Walnut High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-Code	Cal-Code	Cal-Code	Cal-Code	Cal-Code	Cal-Code	Cal-Code	Middle College	UCO
<b>West Covina Unified</b>											
Cameron Elementary											
Coronado Continuation High											
Edgewood Middle											
West Covina High											
<b>Westside Union Elementary</b>											
Walker (Joe) Middle											
<b>Whittier City Elementary</b>											
Dexter (Walter F ) Intermediate											
Edwards (Katherine) Intermediate	602365										
<b>Whittier Union High</b>											
California High	193130										
Frontier High											
La Serna High	193486										
Pioneer High	193688										
Santa Fe High	193790										
Whittier High	193970										
<b>William S. Hart Union High</b>											
Arroyo Seco Junior High											
Bowman (Jereann) High											
Canyon High											
Hart (William S ) Senior High											
Learning Post High											
Placenta Junior High											
Saugus High											
Sierra Vista Junior High											
<b>Wilsona Elementary</b>											
Challenger Middle											
<b>Wiseburn Elementary</b>											
Dana (Richard Henry) Elementary											
<b>Madera County</b>											
<b>Alview-Darryland Union Elementary</b>											
Darryland Elementary											
<b>Bass Lake Elementary</b>											
Oak Creek Intermediate											
<b>Chowchilla Elementary</b>											
Wilson Elementary											
<b>Chowchilla Union High</b>											
Chowchilla High											
Gateway High											
<b>Madera Unified</b>											
Furman (Duane E.) High											
Jefferson (Thomas) Junior High	602405										
Madera High	203570										
Sugar Pine High											
<b>Yosemite Union High</b>											
Ahwahnee Hills High											
Foothill High											
Raymond High											
Yosemite High	203001										
<b>Mann County</b>											
<b>Dune Elementary</b>											
Miller Creek Middle											
<b>Kentfield Elementary</b>											
Kent (Adaline E.) Middle											
<b>Larkspur Elementary</b>											
Hall Middle											

## SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

School Code	Access	Cal-	Middle
Institution Name	CCPP	CAPP	SOAP
	CATPP	CRP	EAOP
	MESA	College	UCO
Mill Valley Elementary			
Mill Valley Middle			
Novato Unified			
North Marin High			
Novato High			
San Jose Middle			
San Marin High			
Sinaloa Middle			
Reed Union Elementary			
Del Mar Intermediate			
Ross Valley Elementary			
White Hill Middle			
San Rafael City Elementary			
James B Davidson Middle			
San Rafael City High			
Madrone High			
San Rafael High			
Terra Linda High			
Shoreline Unified			
Tomales High			
Tamalpais Union High			
Mewah Mountain High			
Redwood High			
Sir Francis Drake High			
Tamalpais High	213369		Y
<i>Mariposa County</i>			
Mariposa County Unified			
Coulterville High			
Mariposa County High			
Mariposa Junior High			
Spring Hill High And Continuation			
Yosemite Park High			
<i>Mendocino County</i>			
Anderson Valley Unified			
Anderson Valley Junior/Senior High			
Rancheria Continuation			
Fort Bragg Unified			
Fort Bragg Middle			
Fort Bragg Senior High			
North Coast Continuation High			
Laytonville Unified			
Laytonville High			
Leggett Valley Unified			
Leggett Valley High			
Mendocino Unified			
Mendocino Community High			
Mendocino High			
Mendocino Middle			
Point Arena Joint Unson High			
Point Arena High			
South Coast Continuation			
Potter Valley Unified			
Centerville High			
Potter Valley High			
Round Valley Unified			
Round Valley High			

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	Cal-SOAP	Cal-CATPP	CRP	EAOP	MBSA	Middle College	UCO
<b>Ukiah Unified</b>											
Pomolita Middle											
Redwood Valley Middle											
South Valley High											
Ukiah High											
<b>Willits Unified</b>											
Baechtel Grove Middle											
San Hedrin Continuation											
Willits Junior-Senior High											
<b>Merced County</b>											
<b>Atwater Elementary</b>											
Mitchell Intermediate											
<b>Ballico-Cressey Elementary</b>											
Ballico Elementary											
<b>Delhi Elementary</b>											
El Capitan Elementary											
<b>Dos Palos Joint Union Elementary</b>											
Bryant Elementary											
<b>Dos Palos Joint Union High</b>											
Dos Palos Joint Union High	243120									Y	
Westside High											
<b>Gustine Unified</b>											
Gustine High											
Gustine Middle											
Pioneer High											
<b>Hilmar Unified</b>											
Hilmar Junior-Senior High											
<b>Le Grand Union High</b>											
Granada High											
Le Grand High											
<b>Livingston Union Elementary</b>											
Livingston Intermediate											
<b>Los Banos Unified</b>											
Los Banos High											
Los Banos Junior High											
San Luis High											
<b>Merced City Elementary</b>											
Herbert Hoover Intermediate											
Rudolph Rivera Intermediate											
Tenaya Intermediate											
<b>Merced Union High</b>											
Atwater High											
Livingston High											
Merced High, East											
Merced High, North											
Yosemite High											
<b>Winton Elementary</b>											
Sparkes (Frank) Elementary											
Winton Middle											
<b>Modoc County</b>											
<b>Modoc Joint Unified</b>											
Modoc High											
Modoc Junior High											
Warner High (Cont )											
<b>Surprise Valley Joint Unified</b>											
Surprnse Valley High											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Tulalake Basin Joint Unified</b>										
Tulalake High										
<b>Mono County</b>										
<b>Eastern Sierra Unified</b>										
Coleville High										
Lee Vining High										
<b>Mammoth Unified</b>										
Mammoth High										
<b>Monterey County</b>										
<b>Carmel Unified</b>										
Carmel High										
Carmel Middle										
Carmel Valley High										
<b>Gonzales Union Elementary</b>										
Fairview Middle	602609							Y		
<b>Gonzales Union High</b>										
Gonzales High	273088							Y		
Pinnacles High										
<b>King City Joint Union High</b>										
King City High										
Los Padres High										
<b>King City Union Elementary</b>										
San Lorenzo Elementary										
<b>Monterey Peninsula Unified</b>										
Colton (Walter) Middle										
Cypress High										
Fitch (Roger S ) Middle										
King (Martin Luther) Middle	605872							Y		
Los Arboles Middle										
Marina La Via Continuation										
Monterey High	273280							Y		
Seaside High	273534							Y		
<b>North Monterey County Unified</b>										
El Camino High										
Gambetta (Joseph) Middle										
Moss Landing Middle										
North Monterey County High										
<b>Pacific Grove Unified</b>										
Community High										
Pacific Grove High										
Pacific Grove Middle										
<b>Pacific Valley Unified</b>										
Pacific Valley K-12										
<b>Salinas Union High</b>										
Alisal High	273010							Y		Y
El Sausal Junior High	605876							Y		
Mt. Toro High										
North Salinas High										
Salinas High	273455							Y		
Washington Junior High										
<b>Santa Rita Union Elementary</b>										
Gavilan View Middle										
<b>Napa County</b>										
<b>Calistoga Joint Unified</b>										
Calistoga Junior-Senior High										
Palisades High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Napa Valley Unified</b>											
Napa High											
Redwood Middle											
Silverado Middle											
Temescal High											
Vintage High											
<b>St. Helena Unified</b>											
Madrone High											
St. Helena Senior High	283710									Y	
Stevenson (Robert Louis) Intermediate											
<b>Nevada County</b>											
<b>Grass Valley Elementary</b>											
Gilmore (Lyman) Intermediate											
<b>Nevada City Elementary</b>											
Seven Hills Intermediate											
<b>Nevada Joint Union High</b>											
Bear River High											
Empire Continuation High											
Nevada Union High											
<b>Pleasant Ridge Union Elementary</b>											
Magnolia Intermediate											
<b>Twin Ridges Elementary</b>											
Grizzly Hill Elementary											
<b>Orange County</b>											
<b>Anaheim Union High</b>											
Anaheim High	303022					Y				Y	
Ball Junior High											
Brookhurst Junior High											
Cypress High											
Dale Junior High											
Gilbert High											
Katella High											
Kennedy (John F.) High											
Lexington Jr. High											
Loara High											
Magnolia High											
Orangeview Junior High											
Savanna High											
South Junior High											
Sycamore Junior High											
Walker Junior High											
Western High											
<b>Brea-Olinda Unified</b>											
Brea Canyon High											
Brea Junior High											
Brea-Olinda High											
<b>Buena Park Elementary</b>											
Buena Park Junior High											
<b>Capistrano Unified</b>											
Capistrano Valley High											
Dana Hills High											
Forster (Marco F.) Junior High											
Niguel Hills Junior High											
San Clemente High											
Serra High											
Shorecliffs Junior High											
<b>Fountain Valley Elementary</b>											
Fulton (Harry C.) Middle											
Masuda (Kazuo) Middle											
Talbert (Samuel E.) Middle											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Fullerton Elementary</b>											
Ladera Vista Junior High											
Nicolas Junior High											
Parks (D Russell) Junior High											
<b>Fullerton Joint Union High</b>											
Buena Park High											
Fullerton High	303250									Y	
La Habra High	303336									Y	
La Vista High											
Sonora High											
Sunny Hills High											
Troy High											
<b>Garden Grove Unified</b>											
Alamitos Intermediate											
Bell (Hilton D ) Intermediate											
Bolsa Grande High											
Doig (Leroy L.) Intermediate	602855									Y	
Fitz (Stephen R.) Intermediate											
Garden Grove High											
Irvine (James) Intermediate											
Jordan (Donald S ) Intermediate											
La Quinta High											
Lake High											
Los Amigos High											
McGarvin (Sarah) Intermediate											
Pacifica High											
Ralston (Dr Walter C.) Intermediate											
Rancho Alamitos High											
Santiago High	303655									Y	
<b>Huntington Beach City Elementary</b>											
Dwyer (Ethel) Middle											
Sowers (Isaac L ) Middle											
<b>Huntington Beach Union High</b>											
Edison High											
Fountain Valley High											
Huntington Beach High											
Manna High	303441									Y	
Ocean View High											
Westminster High	303844									Y	
Wintersburg High (Cont )											
<b>Irvine Unified</b>											
Irvine High											
Lakeside Middle											
Rancho San Joaquin Intermediate											
S.E.L.F Alternative High											
Sierra Vista Middle											
University High											
Venado Middle											
Woodbridge High											
<b>La Habra City Elementary</b>											
Imperial Middle											
Washington Middle											
<b>Laguna Beach Unified</b>											
Laguna Beach High											
Thurston Middle											
<b>Los Alamitos Unified</b>											
Laurel High											
Los Alamitos High											
McAuliffe (Sharon Christa) Middle											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Access		Cal-			Middle		
	Code	CCPP	CAPP	SOAP	CATPP	CRP	EAOP	MESA College UCO
<b>Newport-Mesa Unified</b>								
Corona Del Mar High								
Costa Mesa High								
Ensign (Horace) Intermediate								
Estancia High	303200						Y	
Newport Harbor High								
Tewinkle (Charles W ) Intermediate								
<b>Orange Unified</b>								
Canyon High								
Cerro Villa Junior High								
El Modena High								
El Rancho Middle								
Orange High								
Portola Junior High								
Richland Continuation High								
Santiago Middle								
Villa Park High								
Yorba Middle								
<b>Placentia Unified</b>								
El Camino Real Continuation High								
El Dorado High								
Esperanza High								
Kracmer Junior High	603004							Y
Tuffree (Col J K.) Junior High								
Valencia High	303802							Y
Yorba (Bernardo) Junior High								
Yorba Linda Middle								
<b>Saddleback Valley Unified</b>								
El Toro High								
La Paz Intermediate								
Laguna Hills High								
Los Alisos Intermediate								
Mission Viejo High								
Serrano Intermediate								
Silverado High (Cont.)								
Trabuco Hills High								
<b>Santa Ana Unified</b>								
Carr (Gerald P ) Intermediate	605898						Y	Y
Century High	303049		Y					
Immaculate Heart of Mary Elementary	696504						Y	
Lathrop Intermediate	605897						Y	
Mac Arthur (Douglas) Fundamental Intermediate	610282						Y	
McFadden Intermediate	606174		Y				Y	Y
Mountain View High								
Our Lady Of The Pillar	696509						Y	
Saddleback High	303582		Y				Y	Y
Santa Ana High	303635		Y	Y			Y	Y
Sierra Intermediate	603041						Y	
Spurgeon Intermediate	609468		Y				Y	Y
St Joseph Elementary School	697373						Y	
Valley High	303645		Y				Y	Y
Willard Intermediate	606175		Y				Y	
<b>Tustin Unified</b>								
Columbus Tustin Middle								
Currie (A G ) Middle								
Foothill High								
Hewes Middle								
Hillview High								
Tustin High	303755						Y	
<b>Westminster Elementary</b>								
Johnson Middle								
Stacey Intermediate								
Warner Middle								

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	Cal-SOAP	Cal-CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Placer County</b>											
Auburn Union Elementary											
E V Cain Elementary											
<b>Eureka Union Elementary</b>											
Eureka Union Elementary											
Willma Cavitt Elementary											
<b>Foresthill Union Elementary</b>											
Foresthill Drive Middle											
<b>Placer Hills Union Elementary</b>											
Weimar Hills Junior High											
<b>Placer Union High</b>											
Chana High											
Colfax High											
Del Oro High											
Placer High											
<b>Rocklin Unified</b>											
Rocklin Elementary											
<b>Roseville City Elementary</b>											
Eich Intermediate											
<b>Roseville Joint Union High</b>											
Adelante High											
Oakmont High											
Roseville High											
Success High											
<b>Tahoe-Truckee Unified</b>											
North Tahoe High											
North Tahoe Intermediate											
Sierra Continuation High											
Sierra Mountain Intermediate											
Tahoe-Truckee Junior Senior High											
<b>Western Placer Unified</b>											
Edwards (Glen) Intermediate											
Lincoln High											
Phoenix High											
<b>Plumas County</b>											
<b>Plumas Unified</b>											
Almanor High											
Beckwourth (Jim) High											
Chester Junior-Senior High											
Greenville Junior-Senior High											
Indian Valley High											
Portola Junior-Senior High											
Quincy Junior-Senior High											
Sierra High											
<b>Riverside County</b>											
<b>Alvord Unified</b>											
Alvord Continuation High											
Arizona Intermediate	603150									Y	
La Sierra High	333000									Y	
Loma Vista Intermediate											
Norte Vista High	333429									Y	
Wells Intermediate	603159									Y	
<b>Banning Unified</b>											
Banning High	333021					Y				Y	
Coombs (Susan B ) Intermediate	603164									Y	
New Horizon High											
<b>Beaumont Unified</b>											
Beaumont Senior High											
Mountain View Junior High											
San Andreas High											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	Cal-SOAP	Cal-CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Coachella Valley Unified</b>											
Bobby G Duke Elementary											
Coachella Valley High	333099							Y			
La Familia Continuation High											
West Shores High											
<b>Corona-Norco Unified</b>											
Auburndale Junior High											
Buena Vista High (Occupational)											
Centennial High											
Corona Fundamental Intermediate	605903							Y			
Corona Senior High	333160							Y			
Horizon Continuation High											
Norco High											
Norco Intermediate											
Raney (Letha) Junior High	605904							Y			
<b>Desert Sands Unified</b>											
Amistad High											
Indio High	333319							Y			
Jefferson (Thomas) Middle	603201							Y			
La Quinta Middle	610775							Y			
Palm Desert High											
Palm Desert Middle	603199							Y			
Wilson (Woodrow) Middle	603202							Y			
<b>Hemet Unified</b>											
Acacia Junior High											
Alessandro High											
Hamilton K-11											
Hemet Junior High											
Hemet Senior High											
<b>Jurupa Unified</b>											
Ina Arbuckle Elementary	603217							Y			
Jurupa Middle	605907							Y			
Jurupa Valley High	333041							Y			
Mission Middle	606177							Y			
Nueva Vista Continuation High											
Pacific Avenue Elementary	603219							Y			
Rubidoux High	333713							Y			
Rustic Lane Elementary	603221							Y			
<b>Lake Elsinore Unified</b>											
Elsinore High											
Elsinore Junior High											
Ortega High											
Terra Cotta Junior High											
<b>Menifee Union Elementary</b>											
Menifee Middle											
<b>Moreno Valley Unified</b>											
Alessandro Middle	605908							Y			
Badger Springs Middle											
Butterfield Elementary	610350							Y			
Butterfield Middle											
Canyon Springs High	333039				Y			Y			
March Mountain High (Cont.)											
Moreno Valley High	333377				Y			Y			
Mountain View Middle											
Sunnymead Elementary	603233				Y						
Sunnymead Middle											
Valley View High											
<b>Palm Springs Unified</b>											
Coffman (Nellie N ) Middle											
Cree (Raymond) Middle											
Desert Springs Middle											
Mount San Jacinto High											
Palm Springs High											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	Cal- SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Palo Verde Unified</b>										
Blythe Junior High										
Palo Verde High										
Twin Palms Continuation										
<b>Perris Union High</b>										
Perris High	333597							Y		
Perris Lake High (Cont )										
Perris Valley Middle	605911							Y		
Pinacate Middle										
<b>Riverside Unified</b>										
Arlington High	333002							Y		
Central Middle	605912							Y		
Chemawa Middle	606179							Y		
Fremont Elementary	603258							Y		
Gage (Mathew) Middle	605913							Y		
Highland Elementary	603263							Y		
Lincoln (Abraham) Continuation										
Longfellow Elementary	603269							Y		
North (John W ) High	333440							Y		
Polytechnic High	333623							Y		
Ramona High	333649							Y		
Sierra Middle	605914							Y		
University Heights Middle	605915							Y		
<b>San Jacinto Unified</b>										
Monte Vista Middle	605916							Y		
Mountain View High										
San Jacinto Senior High	333765							Y		
<b>Temecula Valley Unified</b>										
Marganta Middle										
Rancho Vista High										
Temecula Middle										
Temecula Valley High										
<b>Sacramento County</b>										
<b>Center Unified</b>										
Center High School	343037							Y	Y	Y
Center Junior High	603291							Y	Y	
Dudley (Arthur S ) Elementary	603290								Y	
McClellan High										
<b>Del Paso Heights Elementary</b>										
Del Paso Heights Elementary	603293								Y	
Fairbanks Elementary	603294								Y	
North Avenue Elementary	603297								Y	
<b>Elk Grove Unified</b>										
Daylor (William) High										
Elk Grove High	343257							Y	Y	
Florn High	343047							Y	Y	
Kennedy (Samuel) Elementary	603310								Y	
Kerr (Joseph) Middle	606180							Y	Y	
Omochoomnes High										
Pioneer High	343031								Y	
Reese (David) Elementary	603302								Y	
Rio Cazadero High										
Rutter (James) Middle	605917							Y	Y	
Valley High	343017							Y	Y	
<b>Elverta Joint Elementary</b>										
Alpha Intermediate										
<b>Folsom-Cordova Unified</b>										
Cordova Senior High										
Folsom High										
Folsom Junior High										
Folsom-Cordova Independent Study High										
Kinney High										
Mills Junior High										
Mitchell (W E.) Junior High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access		Cal-			CRP	EAOP	MESA	Middle	
		CCPP	CAPP	SOAP	CATPP					College	UCO
<b>Galt Joint Union Elementary</b>											
Galt Middle											
<b>Galt Joint Union High</b>											
Estrellita Continuation High											
Galt High	343347							Y			
<b>Grant Joint Union High</b>											
Aero Haven High Continuation											
Don Juho Junior High	605922							Y	Y		
Foothill Farms Junior High	605923							Y			
Foothill High	343326							Y			
Grant Union High	343379							Y	Y		
Highlands High	343437							Y	Y		
Martin Luther King, Jr. Junior High	610278							Y	Y		
Rio Linda High	343697							Y			
Rio Linda Junior High	605925							Y			
Rio Tierra Fundamental Junior High	605926							Y	Y		
Vista Nueva High (Cont.)											
<b>Natomas Union Elementary</b>											
Natomas Junior High											
<b>River Delta Joint Unified</b>											
Delta High											
Rio Vista High	483530					Y					
Riverview Elementary											
<b>Sacramento City Unified</b>											
Albert Einstein Middle	605927							Y	Y		
American Legion High											
Argonaut High											
Bret Harte Elementary	603380								Y		
C. K. McClatchy High	343541							Y	Y		Y
California Middle	605928							Y	Y		
Edward Kemble Elementary	603391								Y		
Fern Bacon Middle	605930							Y			
Freeport Elementary	603396								Y		
Fruit Ridge Elementary	603398								Y		
Goethe (Charles M.) Middle	605929							Y	Y		
H. W. Harkness Elementary	603399								Y		
Hiram W. Johnson High	343463							Y	Y		Y
Hubert H. Bancroft Elementary	603401								Y		
Jedediah Smith Elementary	603403								Y		
John Bidwell Elementary	603404								Y		
John F. Kennedy High	343476							Y	Y		Y
John H. Still Middle	605932							Y	Y		
Kit Carson Middle	606183							Y			
Luther Burbank High	343101							Y	Y		Y
Sacramento High	343755							Y	Y		Y
Sam Brannan Middle	605935							Y	Y		
Sutter Middle	606669							Y	Y		
Will C. Wood Junior High	605936								Y		

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>San Juan Unified</b>										
Arcade Middle										
Arden Middle										
Barrett Middle										
Bella Vista High										
Carnegie Middle										
Casa Roble Fundamental High	343111							Y		
Casa Viva Continuation High										
Children's Receiving Home Of Sacramento										
Churchill Middle										
Del Campo High	343205							Y		
El Camino Fundamental High	343231							Y		
Encina High	343283							Y		
Greer Elementary	603459								Y	
Howe Avenue Elementary	603462								Y	
La Entrada Continuation High										
La Vista Continuation High										
Loma Vista (Cont )										
Los Amigos Continuation High										
Mesa Verde High										
Mira Loma High										
Palos Verde Continuation										
Pasteur Middle										
Rio Americano High										
Rio Del Sol Continuation High										
Rogers Middle										
Salk Alternative	603488								Y	
San Juan High	343850							Y	Y	
Sierra Nueva High										
Sierra Vista High										
Starr King Intermediate										
Sylvan Middle										
Via Del Campo Continuation High										
Vista Bonita (Cont )										
<b>San Benito County</b>										
<b>Hollister Elementary</b>										
Rancho San Justo Elementary										
<b>San Benito High</b>										
San Andreas Continuation High										
San Benito High										
<b>San Bernardino County</b>										
<b>Alta Loma Elementary</b>										
Alta Loma Middle										
<b>Apple Valley Unified</b>										
Apple Valley High										
Apple Valley Junior High										
Willow Park High										
<b>Baker Valley Unified</b>										
Baker High										
<b>Barstow Unified</b>										
Barstow High										
Barstow Junior High										
Central High										
<b>Bear Valley Unified</b>										
Big Bear High										
Big Bear Middle										
Chautauqua High										
<b>Central Elementary</b>										
Cucamonga Intermediate										
<b>Chaffey Union High</b>										
Alta Loma High										
Chaffey High										
Etrwanda High										
Montclair High	363390					Y				
Ontario High										
Valley View High	363765							Y		

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	CCPP	CAPP	Cal-SOAP	CatTPP	CRP	EAOP	MESA	Middle College	UCO
Chino Unified											
Ayala (Ruben S ) High											
Boys Republic High											
Briggs (Lyle S ) Fundamental											
Buena Vista Continuation High											
Chino Senior High											
Don Antonio Lugo High Yr											
Magnolia Junior High Yr											
Ramona Junior High Yr											
Townsend (Robert O ) Jr High											
Colton Joint Unified											
Bloomington High											
Bloomington Junior High											
Colton High	363274								Y		
Colton Junior High											
Slover Mountain High											
Terrace Hills Junior High											
Cucamonga Elementary											
Rancho Cucamonga Middle											
Etrwanda Elementary											
Etrwanda Intermediate											
Fontana Unified											
Alder Junior High	605939								Y		
Birch High											
Citrus High (Cont )											
Fontana High	363330				Y				Y		
Fontana Junior High											
Sequoia Junior High											
Helendale Elementary											
Riverview Middle											
Hesperia Unified											
Hesperia High											
Hesperia Junior High											
Mojave High											
Ranchero Middle											
Lucerne Valley Unified											
Lucerne Valley Middle											
Morongo Unified											
La Contenta Junior High											
Monument Alternative/Continuation											
Sky Alternative/Continuation											
Twentynine Palms High											
Twentynine Palms Junior High											
Yucca Valley High											
Needles Unified											
Needles Junior/Senior High											
Ontario-Montclair Elementary											
Buena Vista Opportunity											
DeAnza Junior High											
Imperial Junior High											
Serrano Junior High											
Vernon Middle											
Vina Danks Middle											
Redlands Unified											
Clement Junior High											
Cope Junior High											
Moore Junior High											
Orangewood High											
Redlands Senior High	363504				Y						
Rialto Unified											
Eisenhower Senior High	363300				Y				Y		
Frisbie Junior High	605944								Y		
Kolb Junior High											
Milor Continuation High											
Rialto Junior High											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Rim Of The World Unified</b>											
Mary P Henck Intermediate											
Mountain High											
Rim Of The World Senior High											
<b>San Bernardino City Unified</b>											
Arrowview Middle	606190									Y	
Cajon High	363222				Y						
Curtis Middle											
Del Vallejo Middle											
Golden Valley Middle											
Richardson Prep Hi											
San Andreas High											
San Bernardino High	363584							Y		Y	
San Geronimo High	363608				Y						
Serrano Middle											
Shandin Hills Middle											
Sierra High											
601 School											
<b>Silver Valley Unified</b>											
Calico High											
Daggett Middle											
Fort Irwin Middle											
Silver Valley High											
<b>Snowline Joint Unified</b>											
Chaparral High											
Pinon Mesa Middle											
Serrano High											
<b>Trona Joint Unified</b>											
Trona Continuation High											
Trona High											
<b>Upland Unified</b>											
Hillside High (Cont )											
Pioneer Junior High											
Upland High											
Upland Junior High											
<b>Victor Valley Union High</b>											
High Desert High											
Imogene Garner Hook Junior High											
Victor Valley High											
Victor Valley Junior High											
<b>Yucaipa Joint Unified</b>											
Green Valley High											
Yucaipa High											
Yucaipa Middle											
<b>San Diego County</b>											
<b>Alpine Union Elementary</b>											
Mac Queen (Joan) Middle											
<b>Bonsall Union Elementary</b>											
Bonsall Middle											
Bonsall Primary	603754							Y			
<b>Borrego Springs Unified</b>											
Borrego Springs High											
<b>Cajon Valley Union Elementary</b>											
Cajon Valley Intermediate											
Emerald Intermediate											
Greenfield Intermediate											
Montgomery Middle											
<b>Carlsbad Unified</b>											
Carlsbad High	373069					Y					
La Palma High											
Valley Junior High	603781					Y					

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MBSA	Middle College	UCO
<b>Coronado Unified</b>										
Coronado High										
Coronado Middle										
<b>Escondido Union Elementary</b>										
Del Dios Middle										
Grant Middle										
Hidden Valley Middle										
<b>Escondido Union High</b>										
Escondido High	373206							Y		
Orange Glen High										
San Pasqual High	373005				Y					
Valley High										
<b>Fallbrook Union Elementary</b>										
Potter (James E.) Intermediate	603827							Y		
<b>Fallbrook Union High</b>										
Fallbrook High	373217				Y		Y			
Ivy High										
<b>Grossmont Union High</b>										
Chaparral High (Cont )										
El Cajon Valley High	373169			Y	Y					
El Capitan High	373180				Y					
Granite Hills High	373233				Y					
Grossmont High	373262				Y					
Helix High	373273			Y	Y		Y			
Monte Vista High	373454			Y	Y		Y			
Mt. Miguel High	373476			Y	Y		Y			
Santana High	373790			Y						
Valhalla High	373006			Y	Y					
West Hills High										
<b>Jamul-Dulzura Union Elementary</b>										
Oak Grove Middle										
<b>Julian Union Elementary</b>										
Julian Junior High										
<b>Julian Union High</b>										
Julian High										
<b>La Mesa-Spring Valley</b>										
La Mesa Middle	603849							Y		
La Presa Middle										
Parkway Middle										
Spring Valley Middle										
<b>Lakeside Union Elementary</b>										
Lakeside Middle										
Tierra Del Sol Middle										
<b>Lemon Grove Elementary</b>										
Lemon Grove Middle										
Palm Middle										
<b>Mountain Empire Unified</b>										
Mountain Empire High										
Mountain Empire Junior High										
<b>Oceanside City Unified</b>										
El Camino High	373901				Y		Y			
Jefferson Junior High	603883				Y		Y			
Lincoln Junior High	603886				Y		Y			
Ocean Shores High										
Oceanside High	373520				Y		Y			
Plato High										
<b>Pauma Elementary</b>										
Pauma Elementary	603896							Y		

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School	Access	Cal-	CRP	EAOP	MESA	College	UCO	
	Code	CCPP	CAPP						SOAP
Poway Unified									
Abraxas Continuation High									
Bernardo Heights Middle									
Black Mountain Middle									
Meadowbrook Middle									
Mt. Carmel High									
Poway High									
Twin Peaks Middle									
Ramona City Unified									
Montecito High									
Peirce (Olive E.) Junior High	610556				Y				
Ramona High	373597				Y				
Rancho Santa Fe Elementary									
Rancho Santa Fe Middle									
San Diego City Unified									
Bell Junior High	605958			Y	Y	Y			
Challenger Junior High	610705				Y				
Clairemont Senior High	373121			Y	Y	Y			
Correia Junior High	605959					Y			
Crawford Senior High	373158			Y	Y	Y			
De Portola (Gasper) Middle	610618					Y			
Farb Middle									
Garfield High	373796				Y				
Gompers Secondary	373030			Y	Y	Y	Y		
Grant Elementary	603967					Y			
Henry Senior High	373278			Y	Y	Y			
Hoover Senior High	373299			Y	Y	Y			
Kearny Senior High	373332			Y	Y	Y			
Keiller Middle	603981					Y			
Knox Elementary	603983			Y					
Kroc Middle	605961				Y	Y			
La Jolla Senior High	373350			Y	Y	Y			
Lewis Junior High	605963					Y			
Lincoln Senior High	373358			Y	Y	Y	Y		
Mabel E. O'Farrell/School for Creative & Performing A	606196			Y	Y	Y			
Madison Senior High	373369			Y	Y	Y	Y		
Mann Junior High	605964				Y	Y			
Marston Middle	605965					Y			
Memorial Junior High	606195				Y	Y			
Mira Mesa Senior High	373018			Y	Y	Y			
Mission Bay Senior High	373443			Y	Y	Y			
Montgomery Junior High	605967				Y	Y			
Morse Senior High	373465			Y	Y	Y	Y		
Muir Alternative Education	373011			Y	Y				
Muirlands Junior High	605968					Y			
Pacific Beach Middle	605969			Y	Y	Y			
Pershing Junior High	606197					Y			
Point Loma Senior High	373575			Y	Y	Y			
Roosevelt Junior High	605970					Y			
San Diego Senior High	373715			Y	Y	Y			
Serra Junior Senior High	373017			Y	Y	Y			
Standley Junior High	609659					Y			
Taft Junior High	605971					Y			
Twain Junior/Senior High	373023			Y					
University City High	373031			Y	Y	Y			
Wangenheim Junior High	609784					Y			
Wilson Middle	606198				Y	Y			
San Dieguito Union High									
Diegueno Junior High	610474					Y			
Earl Warren Junior High									
Oak Crest Junior High	605973					Y			
San Dieguito High	373741				Y	Y			
Sunset High									
Torrey Pines High									
San Marcos Unified									
San Marcos High	373015					Y			
San Marcos Junior High									
Twin Oaks High									

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>San Ysidro Elementary</b>										
San Ysidro Middle	609845						Y			
<b>Sweetwater Union High</b>										
Bonita Vista Junior High	605974						Y			
Bonita Vista Senior High	373040				Y		Y			
Castle Park Middle	605975				Y		Y			
Castle Park Senior High	373080				Y		Y			
Chula Vista Junior High	605976						Y			
Chula Vista Senior High	373106				Y		Y	Y		
Granger Junior High	605977						Y			
Hilltop Junior High	606200						Y			
Hilltop Senior High	373284				Y		Y			
Mar Vista Middle	605978						Y			
Mar Vista Senior High	373395				Y		Y			
Montgomery Junior High	607089						Y			
Montgomery Senior High	373823				Y		Y	Y		
National City Junior High	605979				Y		Y			
Palomar High										
Southwest Junior High	606201				Y		Y			
Southwest Senior High	373012				Y		Y	Y		
Sweetwater Senior High	373822				Y		Y			
<b>Valley Center Union Elementary</b>										
Valley Center Middle	609327				Y					
<b>Vista Unified</b>										
Alta Vista High										
Lincoln Middle	605980						Y			
Palomar High										
Rancho Buena Vista High										
Roosevelt Middle										
Vista High	373870						Y			
Washington Middle										
<b>San Francisco County</b>										
<b>San Francisco Unified</b>										
A. P. Giannini Middle										
Abraham Lincoln High										
Alamo Park High										
Aptos Middle	606202	Y					Y			
Balboa High	383028						Y	Y		Y
Bay Senior High										
Benjamin Franklin Middle	605983	Y								
Burton (Philip & Sala) Academic High	383025						Y	Y		
Downtown High										
Everett Middle	606203	Y					Y			
Francisco Middle										
Galileo High	383176						Y			
George Washington High	383908						Y			
Herbert Hoover Middle	605985	Y								
Hilltop High										
Horace Mann Middle	606204	Y								
International Studies Academy	383035						Y			
J. Eugene Mcateer High	383007						Y			
James Denman Middle	605986	Y						Y		
James Lack Middle	606205	Y								
John A. O'Donnell High	383476						Y			
Lowell High	383340						Y	Y		
Luther Burbank Middle	605987	Y						Y		
Manna Middle										
Mark Twain High										
Martin Luther King Academic Middle	605988	Y					Y			
Mission High	383408						Y			Y
Newcomer High										
Potrero Hill Middle	607205	Y								
Presidio Middle										
Raoul Wallenberg Traditional High	383020						Y			
Roosevelt Middle	605990						Y			
Sunshine High										
Visitation Valley Middle	605991	Y						Y		
Woodrow Wilson High	383940						Y			

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CAPP	Cal- SOAP	Middle College	UCO
<b>San Joaquin County</b>					
<b>Escalon Unified</b>					
El Portal Middle					
Escalon High					
Vista High					
<b>Lincoln Unified</b>					
Larsson (Sture) High					
Lincoln High					
McCandless (John) High					
Pacific Middle					
Sierra Middle					
<b>Linden Unified</b>					
Linden Continuation High					
Linden High					
<b>Lodi Unified</b>					
Delta Sierra Middle					
Liberty High					
Lodi High	393478			Y	
Morada Middle					
Senior Elementary					
Tokay High	393475			Y	
Woodbridge Middle					
<b>Manteca Unified</b>					
Calla High					
East Union High					
Manteca High					
<b>Ripon Unified</b>					
Ripon Continuation					
Ripon High					
<b>Stockton City Unified</b>					
Community Services High					
Edison Senior High	393210			Y	Y
Franklin Senior High	393265			Y	Y
Fremont Middle	605992			Y	
Gateway High					
Golden Valley High					
Hamilton Middle	606587			Y	
Independent Learning Center					
Marshall Middle	605993			Y	
Pacific Horizons High					
Stagg Senior High	393740			Y	Y
Stockton (Commodore) Skills	609865			Y	
Webster Middle	606208			Y	
<b>Tracy Elementary</b>					
Clover (H. Alfred) Middle					
Monte Vista Middle					
<b>Tracy Joint Union High</b>					
Duncan-Russell Continuation					
Tracy High	393800			Y	
<b>San Luis Obispo</b>					
<b>Atascadero Unified</b>					
Atascadero High					
Atascadero Junior High					
Oak Hills High					
<b>Cambria Union Elementary</b>					
Santa Lucia Middle					
<b>Coast Joint Union High</b>					
Coast Union High					

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	Cal-SOAP	CATPP	CRP	EAOP	MBSA	Middle College	UCO
Lucia Mar Unified											
Arroyo Grande High											
Judkins Intermediate											
Lopez Continuation High											
Paulding Intermediate											
Paso Robles Joint Union High											
Liberty High											
Paso Robles High	403575									Y	
Paso Robles Union Elementary											
George H Flanson Middle	610157									Y	
San Luis Coastal Unified											
Laguna Junior High											
Los Osos Junior High											
Morro Bay High											
Pacific Beach Cont High											
San Luis Obispo High											
Shandon Joint Unified											
Shandon High											
Templeton Unified											
Templeton High											
Templeton Middle											
San Mateo County											
Bayshore Elementary											
Robertson (Garnet J ) Intermediate											
Belmont Elementary											
Ralston Intermediate											
Brisbane Elementary											
Lipman Intermediate											
Burlingame Elementary											
Burlingame Intermediate											
Cabrillo Unified											
Cunha (Manuel F ) Intermediate											
Half Moon Bay High											
Pilarcitos High											
Hillsborough City Elementary											
Crocker Middle											
Jefferson Elementary											
Franklin (Benjamin) Intermediate											
Pollicita (Thomas R.) Middle											
Rivera (Fernando) Intermediate											
Jefferson Union High											
Jefferson High											
Oceana High	413339									Y	
Terra Nova High	413507									Y	
Westmoor High											
La Honda-Pescadero Unified											
Pescadero Continuation High											
Pescadero High											
Las Lomas Elementary											
La Entrada Middle											
Menlo Park City Elementary											
Encinal Elementary											
Hillview Middle											
Millbrae Elementary											
Taylor Intermediate											
Portola Valley Elementary											
Corte Madera Elementary											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Ravenswood City Elementary</b>											
Green Oaks Intermediate											
Ravenswood Middle	604436									Y	
<b>Redwood City Elementary</b>											
Kennedy (John F.) Middle	604453								Y		
McKinley Intermediate											
<b>San Bruno Park Elementary</b>											
Parkside Intermediate											
<b>San Carlos Elementary</b>											
Central Middle											
<b>San Mateo City Elementary</b>											
Abbott Middle											
Bayside Middle											
Borel Middle											
Bowditch Middle											
<b>San Mateo Union High</b>											
Aragon High											
Burlingame High											
Capuchino High											
Hillsdale High											
Mills High											
Peninsula High											
San Mateo High											
<b>Sequoia Union High</b>											
Carlmont High	413099								Y	Y	
Menlo-Atherton High	413371								Y	Y	
Redwood High											
Sequoia High	413669								Y	Y	
Woodside High	413805								Y	Y	
<b>South San Francisco Unified</b>											
Alta Loma Junior High											
Baden High											
El Camino High	413255								Y		
Parkway Junior High											
South San Francisco High	413727									Y	
Westborough Junior High											
<b>Santa Barbara</b>											
<b>Carpinteria Unified</b>											
Carpinteria Junior High	606000				Y				Y		
Carpinteria Senior High	423058				Y				Y		
<b>Cuyama Joint Unified</b>											
Cuyama Valley High											
<b>Guadalupe Union Elementary</b>											
McKenzie (Kermit) Junior High	604552								Y		
<b>Lompoc Unified</b>											
Cabrillo Senior High	423045								Y		
Lompoc Middle	606001								Y		
Lompoc Senior High	423306								Y		
Maple High											
Vandenberg Middle											
<b>Orcutt Union Elementary</b>											
Lakeview Junior High											
Orcutt Elementary											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Santa Barbara High</b>											
Dos Pueblos Continuation High											
Dos Pueblos Senior High	423172				Y			Y		Y	
Goleta Valley Junior High	606003				Y						
La Colina Junior High	606209				Y			Y			
La Cuesta Continuation High											
La Cumbre Junior High	606004				Y			Y		Y	
Las Alturas High (Cont.)											
San Marcos Continuation High											
San Marcos Senior High	423523				Y					Y	
Santa Barbara Junior High	606005				Y					Y	
Santa Barbara Senior High	423572				Y			Y		Y	
<b>Santa Maria Joint Union High</b>											
Delta High (Cont )											
Righetti (Ernest) High	423461							Y			
Santa Maria High	423603							Y			
<b>Santa Maria-Bonita Elementary</b>											
El Camino Elementary	604599							Y			
Fesler (Isaac) Elementary	604601							Y			
<b>Santa Ynez Valley Union High</b>											
Refugio High											
Santa Ynez Valley Union High	423634							Y			
<b>Solvang Elementary</b>											
Solvang Upper											
<b>Santa Clara County</b>											
<b>Alum Rock Union Elementary</b>											
Fischer (Clyde L.) Middle	604614							Y		Y	
George (Joseph) Middle	606891							Y			
Mathson (Lee) Middle	604619							Y			
Ocala Middle											
Pala Middle	604628						Y				
Sheppard (William L.) Middle											
<b>Berryessa Union Elementary</b>											
Morrill Middle											
Piedmont Middle											
Sierramont Middle	609303									Y	
<b>Cambrian Elementary</b>											
Ida Price Middle											
<b>Campbell Union Elementary</b>											
Campbell Middle											
Monroe Middle											
Rolling Hills Middle											
<b>Campbell Union High</b>											
Blackford High											
Branham High											
Del Mar High											
Leigh High											
Prospect High											
Westmont High											
<b>Cupertino Union Elementary</b>											
Cupertino Intermediate											
Hyde Intermediate											
Kennedy Intermediate											
Miller Intermediate											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	Cal-SOAP	Cal-CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>East Side Union High</b>											
East Side High Independent Study											
Foothill High											
Hill (Andrew P ) High	433299								Y		Y
Independence High	433003							Y	Y		Y
Lack (James) High	433363								Y		Y
Mt. Pleasant High	433490							Y	Y		Y
Oak Grove High	433520							Y	Y		Y
Overfelt (William C.) High	433542							Y	Y		Y
Piedmont Hills High	433590								Y		Y
Santa Teresa High	433002								Y		Y
Silver Creek High	433790							Y	Y		Y
Yerba Buena High	433001							Y	Y		Y
<b>Evergreen Elementary</b>											
Leyva (George V ) Intermediate	608569							Y			
Quimby Oak Intermediate											
<b>Franklin-McKinley Elementary</b>											
Fair (J Wilbur) Junior High	604722							Y	Y		
Sylvandale Junior High	604727								Y		
<b>Fremont Union High</b>											
Cupertino High											
Fremont High	433247								Y		
Homestead High											
Lynbrook High											
Monta Vista High											
<b>Gilroy Unified</b>											
Gilroy High	433283							Y	Y		
Mt Madonna High											
South Valley Junior High	609821							Y			
<b>Loma Prieta Joint Union Elementary</b>											
English (C. T ) Middle											
<b>Los Altos Elementary</b>											
Blach (Georgina P ) Intermediate											
Egan (Ardis G ) Intermediate											
<b>Los Gatos Union Elementary</b>											
Fisher (Raymond J ) Middle											
<b>Los Gatos-Saratoga Joint Union High</b>											
Los Gatos High											
Mark Twain High											
Saratoga High											
<b>Milpitas Unified</b>											
Calaveras Hills Continuation High											
Milpitas High	433447								Y		
Rancho Milpitas Junior High											
Russell (Thomas) Junior High	604768								Y		
<b>Moreland Elementary</b>											
Castro (Elvira) Middle											
Rogers (Samuel Curtis) Middle											
<b>Morgan Hill Unified</b>											
Britton (Lewis H ) Middle											
Central High											
Lve Oak High											
Murphy (Martin) Middle											
<b>Mountain View Elementary</b>											
Graham (Isaac Newton) Middle	604798							Y			
<b>Mountain View-Los Altos Union High</b>											
Los Altos High	433411							Y			
Mountain View High	433472							Y			
Shoreline High											
<b>Mt Pleasant Elementary</b>											
Boeger (August) Middle	604803						Y	Y			

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Oak Grove Elementary</b>											
Bernal Intermediate											
Davis (Caroline) Elementary											
Herman (Leonard) Intermediate											
<b>Palo Alto Unified</b>											
Gunn (Henry M ) High											
Palo Alto High											
Stanford (Jane Lathrop) Middle											
<b>San Jose Unified</b>											
Broadway High											
Burnett (Peter) Middle	606210									Y	
Castillero Middle	609541									Y	
Gunderson High	433008									Y	
Harte (Bret) Middle	606009									Y	
Hoover (Herbert) Middle	606211							Y		Y	
Leland High	433352									Y	
Lincoln (Abraham) High	433379									Y	
Markham (Edwin) Middle											
Muir (John) Middle	606011									Y	
Pioneer High											
San Jose High Academy	433720									Y	
Steinbeck Middle	609542									Y	
Willow Glen High											
<b>Santa Clara Unified</b>											
Buchser Middle											
Peterson Middle											
Santa Clara High	433012							Y			
Valley High											
Wilcox (Adrian) High											
<b>Saratoga Union Elementary</b>											
Redwood Intermediate											
<b>Sunnyvale Elementary</b>											
Sunnyvale Junior High											
<b>Union Elementary</b>											
Dartmouth Middle											
Denman Elem School	695335							Y			
Union Middle											
<b>Whisman Elementary</b>											
Crittenden Elementary	604947							Y			
<b>Santa Cruz County</b>											
<b>Live Oak Elementary</b>											
Del Mar Middle											
<b>Pajaro Valley Joint Unified</b>											
Aptos High	443051		Y					Y			
Aptos Junior High	604964		Y					Y			
Hall (E.A.) Middle	604968		Y					Y			
Pajaro Middle	604975		Y					Y			
Renaissance High											
Rolling Hills Middle	604978		Y					Y			
Watsonville High	443790		Y					Y	Y		
<b>San Lorenzo Valley Unified</b>											
San Lorenzo Valley High											
San Lorenzo Valley Junior High											
White Oak Continuation High											
<b>Santa Cruz City High</b>											
Branciforte Junior High											
Harbor High											
Loma Prieta High											
Mission Hill Junior High											
Santa Cruz High											
Soquel High											

## SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-Code	Cal-CAPP	Cal-SOAP	Cal-CATPP	CRP	EAOP	MESA	Middle College	UCO
Scotts Valley Union Elementary											
Scotts Valley Middle											
Soquel Elementary											
New Brighton Middle											
<i>Shasta County</i>											
Anderson Union High											
Anderson High											
North Valley High											
West Valley High											
Buckeye Elementary											
Buckeye Junior High											
Cascade Union Elementary											
Anderson Elementary											
Cottonwood Union Elementary											
West Cottonwood Junior High											
Enterprise Elementary											
Parsons Junior High											
Fall River Joint Unified											
Burney Junior-Senior High											
Fall River Junior-Senior High											
Mountain View High											
Happy Valley Union Elementary											
Happy Valley Elementary											
Junction Elementary											
Junction Intermediate											
Redding Elementary											
Sequoia Middle											
Shasta Lake Union Elementary											
Central Valley Intermediate											
Shasta Union High											
Central Valley High											
Enterprise High											
Nova High											
Pioneer Continuation High											
Shasta High											
<i>Sierra County</i>											
Sierra-Plumas Joint Unified											
Downieville Junior-Senior High											
Loyalton High											
Loyalton Intermediate											
Pliocene Ridge Junior-Senior High											
<i>Siskiyou County</i>											
Butte Valley Unified											
Butte Valley High											
Dunsmuir Joint Union High											
Dunsmuir High											
Etna Union High											
Etna Junior Senior High											
Scott Valley Junior High											
Mt. Shasta Union Elementary											
Sisson Elementary											
Siskiyou Union High											
Happy Camp High											
McCloud High											
Mt. Shasta High											
Weed High											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-Code	Cal-Code	CRP	EAOP	MESA	Middle College	UCO
<b>Yreka Union Elementary</b>									
Jackson Street Elementary									
<b>Yreka Union High</b>									
Discovery High									
Yreka High									
<b>Solano County</b>									
<b>Benicia Unified</b>									
Benicia High	483100			Y					
Benicia Middle	605098			Y					
Liberty High									
<b>Dixon Unified</b>									
Dixon High	483225			Y		Y			
Jacobs (C.A.) Intermediate	605102					Y			
Maine Prairie High									
<b>Fairfield-Suisun Unified</b>									
Armijo High	483045			Y					
Bird (Mary) High									
Fairfield High	483300			Y					
Grange Middle									
Green Valley Middle									
Sem Yeto Continuation High									
Sullivan (Charles L.) Middle									
<b>Travis Unified</b>									
Golden West Middle	605126			Y					
North Campus Continuation High									
Vanden High	483880			Y					
<b>Vacaville Unified</b>									
Country High	483386			Y					
Jepson (Willis) Junior High	606018			Y					
Vaca Pena Intermediate	610636			Y					
Vacaville High	483780			Y					
Wood (Will C.) High	483008			Y		Y			
<b>Vallejo City Unified</b>									
Franklin Junior High	606212			Y					
Hogan Senior High	483395			Y		Y			
Peoples High	483805			Y					
Solano Junior High									
Springtowne Junior High	606020					Y			
Vallejo Junior High	609591			Y					
Vallejo Senior High	483850			Y		Y			
<b>Sonoma County</b>									
<b>Analy Union High</b>									
Analy High									
El Molino High									
Laguna High									
<b>Cloverdale Unified</b>									
Cloverdale High									
Johanna Echols-Hansen High									
Washington Street Elementary									
<b>Cotati-Rohnert Park Unified</b>									
Cotati Middle									
El Camino High									
Rancho Cotate High									
Rohnert Park Junior High									
<b>Geyserville Unified</b>									
Geyserville Continuation High									
Geyserville Educational Park High									
Geyserville Middle									

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Healdsburg Union High</b>										
Healdsburg High	493255								Y	
Healdsburg Junior High										
Mountain View Continuation High										
<b>Petaluma Joint Union High</b>										
Casa Grande High										
Kenilworth Junior High										
Petaluma High										
Petaluma Junior High										
San Antonio High										
<b>Santa Rosa High</b>										
Cook (Lawrence) Junior High										
Hilliard Comstock Junior High										
Montgomery High										
Piner High										
Ridgway High										
Rincon Valley Jr High										
Santa Rosa High	493680								Y	
Santa Rosa Junior High										
Slater (Herbert) Junior High										
<b>Sebastopol Union Elementary</b>										
Brook Haven Elementary										
<b>Sonoma Valley Unified</b>										
Agua Caliente High										
Altamura Intermediate										
Sonoma Valley High										
<b>Twin Hills Union Elementary</b>										
Twin Hills Middle										
<b>Windsor Union Elementary</b>										
Windsor Middle										
<b>Stanislaus County</b>										
<b>Ceres Unified</b>										
Argus High										
Ceres High										
Mae Hensley Junior High										
<b>Denair Unified</b>										
Denair High										
Denair Middle										
<b>Empire Union Elementary</b>										
Teel Middle										
<b>Hughson Union Elementary</b>										
Ross (Emilie J ) Elementary										
<b>Hughson Union High</b>										
Billy Joe Dickens High										
Hughson High										
<b>Modesto City Elementary</b>										
La Loma Intermediate										
Mark Twain Intermediate										
Roosevelt Intermediate										
<b>Modesto City High</b>										
Fred C. Beyer High										
Grace M. Davis High										
Modesto High										
Thomas Downey High										
<b>Newman-Crows Landing Unified</b>										
Orestimba High										
West Side Valley High										
Yolo Elementary										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access CCPP	Cal- CAPP	SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
<b>Oakdale Joint Union High</b>										
East Stanislaus High										
Oakdale High										
Riverbank High										
<b>Oakdale Union Elementary</b>										
Oakdale Junior High										
<b>Patterson Joint Unified</b>										
Patterson High										
Patterson Junior High										
<b>Stanislaus Union Elementary</b>										
Prescott Senior Elementary										
<b>Sylvan Union Elementary</b>										
Somerset Elementary										
<b>Turlock Joint Elementary</b>										
Turlock Junior High										
<b>Turlock Joint Union High</b>										
Roselawn High										
Turlock High										
<b>Sutter County</b>										
<b>East Nicolaus Joint Union High</b>										
East Nicolaus High										
<b>Live Oak Unified</b>										
Live Oak High										
Valley Oak Continuation High										
<b>Sutter Union High</b>										
Butte View High										
Sutter High										
<b>Yuba City Unified</b>										
Gray Avenue Elementary										
Karperos (Andros) Intermediate										
Powell (Albert) Continuation										
Wilson Continuation High										
Yuba City High	513900									Y
<b>Tehama County</b>										
<b>Corning Union Elementary</b>										
Maywood Intermediate										
<b>Corning Union High</b>										
Centennial (Continuation) High										
Corning High										
<b>Los Molinos Unified</b>										
Los Molinos High										
<b>Red Bluff Union Elementary</b>										
Bidwell Elementary										
Vista Elementary										
<b>Red Bluff Union High</b>										
Red Bluff High										
Salisbury High (Cont)										
<b>Trinity County</b>										
<b>Mountain Valley Unified</b>										
Hayfork High										
Valley High										
<b>Southern Trinity Joint Unified</b>										
Southern Trinity High										
<b>Trinity Union High</b>										
Alps View High										
Trinity High										

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-CCPP	Cal-CAPP	Cal-SOAP	CATPP	CRP	EAOP	MESA	Middle College	UCO
Tulare County											
Alpaugh Unified											
Alpaugh Junior-Senior High											
Burton Elementary											
Burton Intermediate											
Cutler-Orosi Joint Unified											
Lovell High											
Orosi High											
Dinuba Elementary											
Washington Intermediate	605399							Y			
Dinuba Joint Union High											
Dinuba High	543118							Y			
Sierra Vista High (Cont.)											
Earlimart Elementary											
Earlimart Intermediate	605403								Y		
Exeter Union High											
Exeter High											
Kaweah High											
Farmersville Elementary											
Farmersville Junior High											
Lindsay Unified											
Garvey (Steve) Junior High											
Grove High											
Lindsay Senior High											
Porterville Elementary											
Bartlett Intermediate											
Pioneer Intermediate											
Porterville Union High											
Citrus High											
Monache High	543278			Y							
Porterville High	543411							Y			
Strathmore Union High											
Frazier High											
Strathmore High											
Tulare City Elementary											
Cherry Middle											
Live Oak Middle											
Mulcahy Middle											
Tulare Joint Union High											
Tulare High											
Tulare Western High											
Valley High											
Visalia Unified											
Divisadero Middle											
Golden West High	543004							Y			
Green Acres Middle	605460							Y			
Mt Whitney High	543282							Y			
Redwood High	543452							Y			
Sequoia High											
Valley Oak Intermediate	609237							Y			
Visalia Independent Study											
Woodlake Union Elementary											
Woodlake Valley Middle											
Woodlake Union High											
Bravo Lake High											
Woodlake High											

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	CCPP	CAPP	Cal-SOAP	CatTPP	CRP	EAOP	MESA	Middle College	UCO
<b>Tuolumne County</b>											
Sonora Union High											
Cassina (Dano) High											
Sonora High											
Summerville Union High											
Long Barn High											
Summerville High											
Tuolumne High											
<b>Ventura County</b>											
Conejo Valley Unified											
Colina Intermediate											
Conejo Valley High											
Los Cerritos Intermediate											
Newbury Park High											
Redwood Intermediate											
Sequoia Intermediate											
Thousand Oaks High											
Westlake High											
Fillmore Unified											
Fillmore Community High											
Fillmore Junior High	606032								Y		
Fillmore Senior High	563202								Y		
Hueneme Elementary											
Blackstock (Charles) Elementary	605503								Y		
Green (E O ) Elementary	605504								Y		
Moorpark Unified											
Chaparral Middle											
Community High											
Moorpark Memorial High											
Oak Park Unified											
Medea Creek Middle											
Oak Park High											
Oak View High											
Ocean View Elementary											
Ocean View Junior High											
Ojai Unified											
Chaparral High											
Matilija Junior High											
Nordhoff High											
Oxnard Elementary											
Fremont Intermediate											
Haydock Intermediate	605530								Y		
Nueva Vista Intermediate											
Oxnard Union High											
Camarillo (Adolfo) High											
Channel Islands High	563174								Y	Y	
Frontier High											
Hueneme High	563284								Y	Y	
Oxnard High	563454								Y	Y	
Rio Mesa High	563476								Y		
Pleasant Valley Elementary											
Los Altos Intermediate											
Monte Vista Intermediate											
Rio Elementary											
Rio Del Valle Elementary	605549								Y		
Santa Paula Elementary											
Isbell Middle	605559								Y		
Santa Paula Union High											
Renaissance High											
Santa Paula Union High	563577								Y		

# SCHOOL PARTICIPATION REPORT FOR OUTREACH PROGRAMS

Institution Name	School Code	Access	Cal-	OCPP	CAPP	SOAP	CATPP	CRP	EAOP	MESA	College	UCO
Simi Valley Unified												
Apollo High												
Hillside Junior High												
Royal High												
Sequoia Junior High												
Simi Valley High												
Sinaloa Junior High												
Valley View Junior High												
Ventura Unified												
Anacapa Middle												
Balboa Middle	606037								Y			
Buena High	563079								Y			
Cabrillo Middle												
De Anza Middle	606215								Y			
Mar Vista Continuation/Opportunity High/Independent												
Ventura High	563782								Y			
Yolo County												
Davis Joint Unified												
Davis Senior High	573220								Y			
Emerson (Ralph Waldo) Junior High	606624								Y			
Holmes (Oliver Wendell) Junior	606039								Y			
Martin Luther King High												
Esparto Unified												
Esparto High	573290					Y			Y			
Madison Community High	573005								Y			
Washington Unified												
Golden State Middle	609833					Y					Y	
Holy Cross	696615								Y			
River City Senior High	573515								Y		Y	
Yolo High												
Winters Joint Unified												
Winters High	573850					Y			Y			
Winters Middle	609536					Y			Y			
Wolfskill High												
Woodland Joint Unified												
Douglass Junior High	607127								Y		Y	
Lee Junior High	605651								Y		Y	
Rhoda Maxwell Elementary	606625										Y	
Woodland Senior High	573880								Y		Y	
Zamora Elementary	609667										Y	
Yuba County												
Marysville Joint Unified												
Alicia Intermediate												
Foothill Elementary												
Lindhurst High												
Marysville High												
McKenney Intermediate												
W T Ellis High												
Yuba Gardens Intermediate												
Wheatland Elementary												
Bear River Elementary												
Wheatland Union High												
Wheatland Union High												

## *Appendix B*

### **ACCESS**

#### **Alliance for Collaborative Change in School Systems**

##### **UPDATED INFORMATION ON ACCESS**

**for the California Postsecondary Education Commission's Third Progress  
Report on the Effectiveness of Intersegmental Preparation Programs**

July 15, 1991

Revised January 7, 1992

**ACCESS  
Lawrence Hall of Science  
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Berkeley, California  
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## Introduction

The purpose of this report is to update selected information on the ACCESS program submitted to the California Postsecondary Education Commission for the First and Second Progress Reports on the Effectiveness of Intersegmental Preparation Programs. A subset of charts presented in those reports have been updated to include results from the 1989-90 academic year.

## Program Overview

ACCESS was established in 1980 by the University of California at Berkeley to assist its neighboring secondary schools to strengthen their capacity to prepare low-income, ethnic minority students for college. It is part of a broad-based effort of the university and the Oakland and San Francisco school districts to increase student motivation and achievement and ultimately, to increase the number of underrepresented minority students who are eligible to enter four-year colleges.

The program aims to bring about systemic changes in the schools that would increase student access to college-preparatory courses and improve the schools' college-preparatory programs. Program staff focus on helping teachers, administrators and counselors to implement extensive curriculum and instructional reforms recommended by the California State Department of Education mathematics and English-language arts curriculum frameworks. The many objectives of this work include improving math, English, and interdisciplinary curriculum, instructional and assessment practices, course standards and expectations, college advising and programming practices, school organization and instructional leadership.

ACCESS has worked intensively with two Oakland high schools and their six feeder junior high schools since 1981. In 1986, it was established in a third Oakland high school and its two feeder middle schools. At the same time, the program was established in five San Francisco middle schools. In 1988, it expanded to three additional San Francisco middle schools and in 1991 it expanded to an additional three middle schools. By 1991, the program was serving 75% of San Francisco's middle schools and 60% of Oakland's secondary schools.

The following descriptions of the program's three components -- technical assistance, staff development, and student services -- further delineate the program's operation: (CHART A)

### Technical Assistance Component

Technical assistance is provided at school sites and in classrooms. It is problem-solving oriented and provides follow-up to help teachers implement ideas introduced in the staff development component. It addresses immediate and long-range needs mutually defined by school staff and ACCESS coordinators, and is provided in the context of an ongoing, collaborative working relationship.

Technical assistance is also provided in the context of a process for curriculum planning, development, and evaluation that coordinators help school staff in establishing. How this process unfolds and the collaborative mode in which coordinators work with school staff are indicated in the following example. The

ACCESS coordinator would bring together the members of a department in a series of meetings to plan an articulated grade-level curriculum. Following these meetings, the coordinator would assist teachers in developing lessons, in implementing the lessons in the classroom using specific instructional strategies, and in assessing students' learning. Coordinators and teachers would then revise the curriculum in response to their findings. In parallel with their work with teachers and the department as a whole, ACCESS coordinators would work with counselors to place and support students in advanced courses. They would also meet with school administrators to discuss curriculum coordination issues and the nature of the administrative and organizational support teachers would need to effectively implement the curriculum.

#### Staff Development Component

ACCESS Coordinators conduct a broad staff development program aimed at strengthening teachers' capacity to implement and sustain positive changes. It is aimed, in particular, at introducing teachers to new curriculum, instructional, and assessment practices, and at strengthening teachers' ability to plan and develop curriculum. Where technical assistance is oriented toward bringing about immediate changes through the direct assistance of ACCESS coordinators, staff development is oriented toward teachers' long-term growth.

Staff development is provided in the context of technical assistance as the need arises and through a combination of direct instruction and modeling. For example, as teachers and coordinators work together to plan curriculum teachers might be provided instruction in the curriculum itself. As they work together to develop lessons for their classes, teachers might be provided instruction in the process of planning and designing lessons. The crucible for both technical assistance and staff development is the ongoing, collaborative, working relationship between teachers and ACCESS Coordinators. It is in the context of this relationship that involves teachers as full partners in the change process that teachers are led to develop the understandings, expectations, ownership in the curriculum, leadership, and professionalism that is so essential to bringing about and sustaining improvements in response to new problems and evolving needs.

#### Student Services Component

ACCESS teaching assistants provide students direct services that are highly coordinated with the teachers' instruction and the technical assistance and staff development provided by ACCESS coordinators. Teaching assistants work in classrooms to 1) facilitate small-group learning and to assist students in completing class work, and 2) assist teachers in implementing new instructional strategies and lessons introduced by or developed with the ACCESS Coordinator. Teaching assistants also reinforce their work in the classroom in before- and after-school study group sessions designed to help students understand their lessons and to complete out of class assignments.

Teaching assistants provide a support system for the students that parallels the support system provided for teachers by the ACCESS Coordinators. By working with students in the classes on a weekly basis, teaching assistants have the opportunity to establish mentor relationships with students that enable them to provide ongoing college advising and motivational support. To prepare students for college admissions, teaching assistants offer SAT preparation sessions, serve as advisors in the college information, admissions, and scholarship process, and work with individual students to draft and revise their college application essays.

The student services component was an integral part of the ACCESS program at the junior high and middle school levels for six years and was discontinued in 1986 for lack of funding. Since then it has operated only at the high schools, and in 1988-89 and 1989-90 was diminished at the high school level for further lack of funds.

### Student Outcomes

The student outcome data presented in this report has been collected over a 10 year period in the Oakland Unified School District and a five year period in the San Francisco Unified School District. Trends presented in the First and Second Progress Reports have been updated to include 1989-90 results, with substitutions taking place where noted.

The following are highlights from the analysis:

- Over the last 10 years, enrollments of African-American and Hispanic/Latino students in college preparatory math classes at the three ACCESS-served Oakland high schools have increased steadily, with some short-term fluctuations. More students have progressively taken more high-level math courses at early stages in their high school careers. Increasing numbers of these students have continued in the college preparatory sequence and have satisfied the UC/CSU mathematics eligibility requirement for entrance upon graduation. From 1980 to 1990, the percentage of seniors meeting the UC/CSU mathematics requirement rose from 1.6% to 14.1%, the percentage of students "on-track" to meet the requirements upon graduation rose from 10.7% to 27.3%, and the percentage of students completing algebra or geometry by the end of 10th grade rose from 17.1% to 34.6%. The percentage of students completing algebra by the end of 9th grade rose from 7.6% to 19.4%. (See Chart 1)
- Student scores on standardized UC/CSU Math Diagnostic Tests (MDT) have increased steadily over time. (See Charts 2, 3 and 4) We report here longitudinal trends for the five San Francisco middle schools and the three Oakland high schools where the program has been established for a substantial length of time and where the testing conditions and treatment were uniform. We have substituted a chart entitled "Performance of All Students on the UC/CSU Algebra Readiness Test (ART) in Five San Francisco Middle Schools" for a chart submitted last year entitled "Performance on UC/CSU Algebra Readiness Test in Eleven Intensively-Served Oakland and San Francisco Middle Schools," due to a lack of uniformity in the testing conditions in Oakland. We have also included a new chart entitled "Performance of African American and Spanish-Speaking Students on the UC/CSU Algebra Readiness Test (ART) in Five San Francisco Middle Schools."

The UC/CSU Math Diagnostic Tests, taken in the spring, serve as predictors of student preparation for successive math courses and are therefore indicative of the program's effectiveness in preparing students for the college preparatory sequence. A student scoring over the minimum threshold on the MDT has a relatively good chance of passing the next course with a grade of C or better. A student scoring over the high threshold on the MDT has an excellent chance of passing the next course with a grade of C or better.

In San Francisco middle schools, trends in student performance on the Algebra Readiness Test (ART) show substantial growth in the period 1987-1990, with mean scores increasing and score distributions moving to higher levels. Chart 2 indicates the growth for all students. Chart 3 indicates the growth for African-American and Hispanic/Latino students. The percentage of all students scoring above the minimum threshold has risen from 27.8% (155 students) to 37.4% (204 students). The percentage of all students scoring above the high threshold has risen from 11.5% (64 students) to 18.9% (108 students). The overall mean score has increased from 19.7 to 23.1. These gains have been especially significant for the subgroup of African American and Hispanic/Latino students which comprise the program's target population. In the period 1987-1990, the percentage of these students scoring over the minimum threshold has risen from 16.5% to 28.2%. The percentage of targeted students scoring over the high threshold has risen from 4.3% to 12.2%. These longitudinal trends indicate a gradual strengthening of the schools' capacities to prepare increasing numbers of students for college preparatory mathematics courses in high school.

In Oakland high schools, trends in student performance on the Precalculus Math Diagnostic Test also show substantial growth in the period 1985-1990. The percentage of students scoring above the minimum threshold has risen steadily from 45.0% in 1985 to 67.4% in 1990. The percentage of students scoring over the high threshold increased dramatically from 20.0% in 1985 to 40.9% in 1988, and, while decreasing in 1989 and 1990, have remained considerably higher than in the baseline year. The mean percent correct increased from 47.1 in 1985 to 62.9 in 1988, while dropping slightly to 58.5 in 1990. These trends indicate a gradual strengthening of the high schools' capacities to prepare increasing numbers of students for college. (See Chart 4)

- We are including updated information on the college enrollment rates for students served by the ACCESS program. In the fall of 1990, 15.4% of ACCESS graduates<sup>1</sup> from historically underrepresented backgrounds enrolled in the University of California system compared to the statewide enrollment rate of 5.8%. Likewise, 23.6% of ACCESS graduates from historically underrepresented backgrounds enrolled in the California State University system compared to the statewide enrollment rate of 9.0%. A total of 69.5% of ACCESS graduates from historically underrepresented backgrounds enrolled in California Post Secondary Education compared to the statewide rate of 61.1%. (See Chart 6)

<sup>1</sup> ACCESS graduates are defined as students enrolled in upper division math courses served by both ACCESS Coordinators and ACCESS Teaching Assistants.

## ACCESS - Chart 1

### **Math Course Completion Rates for African-American and Hispanic/Latino Students in Three Oakland High Schools and Feeder Junior High Schools**

	<b>1980<sup>1</sup></b>	<b>1988</b>	<b>1989</b>	<b>1990</b>
Seniors meeting UC/CSU mathematics requirement for college eligibility	1.6%	8.5%	9.6%	14.1%
Students "on track" to meet UC/CSU math requirements by graduation	10.7%	26.1%	23.5%	27.3%
Students completing algebra or geometry by the end of 10th grade	17.1%	32.8%	27.0%	34.6%
Students completing algebra by the end of 9th grade	7.6%	17.4%	21.6%	19.4%

<sup>1</sup> "Baseline year" was chosen as the year before the project took effect in a given school or, if data were unavailable, the earliest year for which complete data were available

## ACCESS - Chart 2

### Performance of **ALL** Students on the UC/CSU Algebra Readiness Test (ART) in Five San Francisco Middle Schools\*

	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>
Number of Students Taking the ART	558	538	591	546
Mean Score	19.7	21.6	23.0	23.1
Percent of Students Scoring Above 20	41.6%	49.6%	55.3%	51.6%
Percent of Students Scoring Above 25 (minimum threshold)	27.8%	31.0%	37.9%	37.4%
Percent of Students Scoring Above 30	19.0%	23.4%	27.6%	27.4%
Percent of Students Scoring Above 35 (high threshold)	11.5%	15.6%	17.9%	18.9%

Changes in student learning have also been measured by student performance on the UC/CSU Algebra Readiness Test (ART). This test has become a fairly reliable statewide predictor of student preparation for algebra. Students scoring above the minimum threshold on this test have a relatively good chance of passing algebra with a grade of C or better. Students scoring above the high threshold have an excellent chance of passing algebra with a grade of C or better.

\* The five schools are Martin Luther King Jr., James Lick, Horace Mann, Potrero Hill, and Visitacion Valley

### ACCESS - Chart 3

#### Performance of **African-American and Hispanic/Latino** Students on the UC/CSU Algebra Readiness Test (ART) in Five San Francisco Middle Schools\*

	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>
Number of Students Taking the ART	327	290	329	294
Mean Score	16.6	18.9	19.9	20.6
Percent of Students Scoring Above 20	28.1%	39.0%	44.4%	43.2%
Percent of Students Scoring Above 25 (minimum threshold)	16.5%	21.7%	28.0%	28.2%
Percent of Students Scoring Above 30	7.6%	14.1%	16.1%	19.4%
Percent of Students Scoring Above 35 (high threshold)	4.3%	7.6%	8.5%	12.2%

Changes in student learning have also been measured by student performance on the UC/CSU Algebra Readiness Test (ART). This test has become a fairly reliable statewide predictor of student preparation for algebra. Students scoring above the minimum threshold on this test have a relatively good chance of passing algebra with a grade of C or better. Students scoring above the high threshold have an excellent chance of passing algebra with a grade of C or better.

\* The five schools are Martin Luther King Jr., James Lick, Horace Mann, Potrero Hill, and Visitacion Valley

## ACCESS - Chart 4

### UC/CSU Math Diagnostic Test (MDT) Results for Pre-Calculus Students at Three Oakland High Schools

	1985 <sup>1</sup>	1988	1989	1990
Number of Students Taking MDT	40	71	56	95
Mean Percent Correct	47.1%	62.9%	59.3%	58.4%
Percent of Students Scoring Over the Minimum Threshold	45.0%	67.6%	64.3%	67.4%
Number of Students Scoring Over the Minimum Threshold	18	48	36	64
Percent of Students Scoring Over the High Threshold	20.0%	40.9%	33.9%	28.4%
Number of Students Scoring Over the High Threshold	8	29	19	27

Changes in student learning have also been measured by student performance on the UC/CSU Math Diagnostic Test (MDT). This test has become a fairly reliable statewide predictor of student preparation for pre-calculus. Students scoring above the minimum threshold on this test have a relatively good chance of passing pre-calculus with a grade of C or better. Students scoring above the high threshold have an excellent chance of passing pre-calculus with a grade of C or better.

<sup>1</sup> "Baseline year" was chosen as the year before the project took effect in a given school or, if data were unavailable the earliest year for which complete data were available

**ACCESS - Chart 5**  
**Math SAT Scores for Students Served by Teaching Assistants**  
**in Three Oakland High Schools**

	<b>1986<sup>1</sup></b>	<b>1988</b>	<b>1989</b>	<b>1990*</b>
Number of Students Taking SAT	53	70	72	92
Mean Score	444	497	504	468
Percent Scoring Over 500	28%	56%	49%	36%
Number Scoring Over 500	15	39	32	33
Percent Scoring Over 350	81%	94%	96%	87%
Number Scoring Over 350	43	66	69	80

\* Due to a reduction in funds in 1990, there was a substantial reduction in the level of direct student services provided by teaching assistants. The drop in scores between 1989 and 1990 is seen to be a direct consequence of this reduction in student services.

<sup>1</sup> "Baseline year" is the year before the project took effect in a given school or, if such data were unavailable, the earliest year for which complete data were available.

## ACCESS - Chart 6

### 1989 College Enrollment Rates for Students Served by ACCESS in Oakland High Schools

<b>California Post Secondary Institutions</b>	<b>All*ACCESS Graduates (N = 267)</b>	<b>ACCESS Graduates from Underrepresented Backgrounds (N = 163)</b>	<b>Statewide Graduates from Underrepresented Backgrounds</b>
University of California	15.4 %	14.1%	5.8%
The California State University	23.6%	24.6%	9.0%
California Community Colleges	28.5%	28.2%	35.8%
Total California Public Post Secondary Education	67.5%	66.9%	50.6%
Independent California Institutions	2.24%	3.7%	N/A
Total California Institutions	69.5%	70.6%	61.1%

9.2% of our graduates attend private colleges outside California.

\* The majority of ACCESS graduates who are not from underrepresented backgrounds are low-income and Asian students

## **Analysis of ACCESS Program Components**

In response to the Commission's request for information on the relative contribution of program components to student outcomes, ACCESS conducted a component analysis during the 1990-91 school year. What follows is a description of the component analysis methodology and the results of the study.

### **Methodology**

ACCESS has three highly coordinated functional components: technical assistance, staff development, and direct services to students. These components have been characterized in the program overview. Their sub-components have been listed in Chart 7.

#### **Technical Assistance and Staff Development**

A confidential survey was sent to all teachers and administrators participating in the ACCESS program during the 1990-91 school year. The survey had three sections. The first asked teachers to assess the value and impact of ACCESS' technical assistance component on curriculum, instruction, and assessment practices. The second asked teachers to assess the value and impact of ACCESS' staff development component on curriculum, instruction, and assessment practices. The third asked teachers to assess changes in their teaching practices and in their students' motivation and learning behavior that had occurred as a result of their work with ACCESS. We intended to run a correlation analysis to determine the impact of technical assistance on changes in teaching and learning that lead to student outcomes. We intended to run the same analysis to determine the impact of staff development on changes in teaching and learning. We would then use the results of the correlation analysis to compare the relative contribution of technical assistance and staff development to student outcomes.

In addition to the survey, site visits were scheduled at each school in which the program works. A series of interviews was conducted with mathematics, English/language arts, and ESL teachers and school administrators who had been involved with the program for a number of years and were therefore able to evaluate the program's components in-depth. Teachers and administrators were asked to assess changes that had occurred in curriculum, instruction, assessment, counseling, school organization, and leadership at each site. In both the interviews and surveys, teachers were asked to identify and give examples of the way in which their work with ACCESS had contributed to these changes. We planned to use the results of the interview study to expand on the nature of the relationship between ACCESS components and student outcomes indicated numerically by the survey.

#### **Student Services**

A combination of survey data, interview data, and student outcome data was used to assess the student services component. In the survey, teachers were asked a series of questions aimed at assessing the impact of various elements of student services on student understanding of the curriculum. Teachers were also asked to assess changes that had taken place in student achievement. In interviews, teachers were asked to provide examples of the work that Teaching Assistants conducted at the

site and evaluate that assistance. We hoped to correlate the value of student services with student outcomes at each site. Long-term student outcome data was also used in this phase of the analysis.

## Analysis

### Technical Assistance and Staff Development

The survey and interview study indicated that both the technical assistance and staff development components had a strong impact on curriculum instruction and assessment. However, the results of the component analysis revealed no significant difference between the value and impact of the technical assistance and student development components in terms of curriculum, instruction, and assessment.<sup>1</sup> This pattern held true for survey results from individual sites and for results from the total sample. Thus, it was not feasible to run a correlation analysis which would measure the relative impact of the two components on changes in teaching and student learning. In addition, the interview study also failed to differentiate between impact of either component on student outcomes.

### Student Services

The survey and interview study suggested a positive overall impact of the student services component on student achievement. Those teachers who had experienced a full student services component identified a link between direct services to students (assisting in classes, tutoring and small group work, standardized test preparation, and facilitating the college information process) and student college-going rates. However, the numerical results of the survey were the same for all high schools -- low, middle, and high achieving. We were therefore unable to correlate the student services component with student outcomes using the survey alone.

Additional evidence of the significance of the contribution of the Student Services component to outcomes for students is indirect. In 1988-89, direct services to students by teaching assistants were substantially reduced. During this period, there were drops in student outcomes in comparison to 1989 levels. Because trends in the data collected over the past 10 years show an increase in student outcomes coinciding with direct services to students, the decrease in student outcomes in conjunction with reductions in individual attention to students suggests that student services play a vital role in achieving those outcomes.

## Implications of the Study

The implication of these results is that neither the staff development nor technical assistance components played a significantly more effective role than the other in bringing about student outcomes. In fact, the study implied that the effectiveness of each component was enhanced by its interaction with the other and that the synergy between the two components was vital to their individual effectiveness. Thus the study strongly suggests that the mode in which the components were

<sup>1</sup>For example, the Technical Assistance component was rated 3.16 on a scale of four and the Staff Development component 3.38 on a scale of four in the aggregate sample

implemented -- staff development in the context of ongoing assistance provided collaboratively -- was critical to their effectiveness and that the two components, for all practical purposes, are inseparable.

As a footnote to these conclusions, the following should be noted. Though the components were implemented uniformly across all the schools and were seen to have had a significant impact on curriculum and instructional and assessment practices in all the schools, there were differences between the schools in the level of their student outcomes. To account for these differences there is evidence that 1) schools with low and moderate student outcomes required more technical assistance and staff development, (e.g. two days per week rather than one day) to have achieved high student outcomes, and 2) there were conditions at some schools that inherently limited the degree of change that could take place and that the components were not able to address.

Finally, the student services component had a positive impact on student achievement. While we could not evaluate the value of the student services component in relation to ACCESS' other components, we did determine that technical assistance and staff development, when conducted in conjunction with direct services to students, are more effective than when implemented without a student services component.

## **ACCESS - Chart 7**

### **Functional Components**

<b>Staff Development To:</b>	<b>Technical Assistance In:</b>	<b>Student Services (in-class instruction, tutoring, study groups, advising) To:</b>
Deepen teachers' and administrators' understanding of curriculum content, current research, and philosophy	Establishing process for curriculum planning, evaluation, and revision	Increase student motivation and confidence in doing academic work
Enhance teachers' ability to plan, design, and evaluate lessons, units, and instructional materials	Developing grade level, departmental, and interdisciplinary core curriculum	Raise student expectations and course content mastery
Enhance teachers' understanding of and ability to use a wide range of instructional strategies	Developing lessons, units, and instructional materials	Prepare students for college exams
Enhance teachers' and counselors' ability to identify and assess individual student needs	Implementing varied instructional strategies	Develop students' awareness of the college admissions process, UC/CSU eligibility requirements, and financial aid
Enhance teachers' ability to use a wide range of assessment tools to enhance learning	Diagnosing student needs, learning styles, and abilities	Assist in the completion of the college application process
Enhance teachers' and counselors' academic and college advising skills	Assessing student growth and achievement	
Develop teachers' and counselors' awareness of the UC/CSU eligibility requirements	Coordinating curriculum planning and implementation within and across departments and across schools	
	Developing a common understanding among counselors and teachers of course expectations and support services for students	
	Facilitating programming and monitoring of student placement in A-F and summer school courses	
	Strengthening communication, collaboration, and community among teachers, counselors, and administrators	
	School planning and problem solving	
	Developing school vision and the school's organizational capacity to realize that vision	
	Facilitating department and school-wide change processes and restructuring of the learning and teaching environment	
	Enhance teachers' ownership of curriculum, expectations, leadership, and sense of professionalism	

## Updated Displays 1 and 2

### Display 1 - Major Characteristics

Alliance for Collaborative Change in School Systems ACCESS	
Program Impetus	Berkeley Chancellor's initiative to strengthen capacity of neighboring secondary schools to prepare underrepresented minority students for college (1980)
Program Mission	Assist schools to engage in a school-based change process leading to curriculum, instructional and organizational reforms that strengthen their math, English, and counseling programs
Program Strategies to Fulfill Mission	Coordinated staff development and technical assistance for teachers, counselors and administrators, with direct support for students
Program Structure	Adaptive to school-site needs
Duration at School Site	Continuous
Potential Length of Time with a Student	Seven years (Grades 6 through 12)

### Display 2 - Operation During 1990-91

Alliance for Collaborative Change in School Systems ACCESS	
Administrative Agency	University of California, Berkeley
Institutional Participants	Oakland and San Francisco school districts; University of California, Berkeley
Program Objectives	To strengthen school capacity to prepare students for college as indicated by improvements in: A-F course completion and college eligibility rates, performance on standardized exams, curriculum, instruction, standards, expectations, counseling, leadership, and school organization
Service Components	Site-based staff development and technical assistance in curriculum planning and development, assessment, counseling, and school organization Direct student support: tutoring, academic/college advising, in-class instruction
Resources	
State	\$ 0
Institutional	900,000*
Other	400,000**
Total	\$ 1,300,000

\* Oakland and San Francisco School Districts

\*\* University of California, Berkeley, Educational Fees

## Updated Display 4

### Display 4 - Characteristics of Students, 1990-91

#### Alliance for Collaborative Change in School Systems ACCESS

Criteria for Student Selection

Middle school: enrollment in math and English courses

High school: enrollment in college preparatory math and/or English courses

Definition of "Served Student"

Students whose teachers participate in ongoing curriculum development and classroom-based technical assistance and staff development activities

Number of Students

7,923

Grade Level

Pre-Seventh

22.4%

Seventh

27.8%

Eighth

27.5%

Ninth

6.6%

Tenth

5.1%

Eleventh

4.9%

Twelfth

5.7%

Other

0.0%

Racial-Ethnic Background

Asian

16.2%

Black

41.5%

Latino

25.6%

Native American

6%

White

7.1%

Other

9.1%

Mean Income

Not Available

Gender

Female

49.6%

Male

50.4%

## **ACCESS' Direction for the Period 1991-1996**

Over the next five years ACCESS is planning to intensify its support to Bay Area school districts. Specifically, the program plans to expand to additional middle, junior high, and high schools in the Oakland and San Francisco School Districts and begin work in the Richmond School District. In addition to the current work being done in mathematics, English, and counseling, ACCESS plans to develop college preparatory science, social science, and interdisciplinary programs. ACCESS will also expand its institutionalization efforts by training additional district staff to implement and manage the program.

The program intends to increase its collaboration with other UC and CSU programs, government laboratories, industry and corporate initiatives, and other postsecondary institutions in order to build more comprehensive support systems for students in schools in which ACCESS operates

ACCESS will continue to provide extensive assistance to districts to plan, implement, and coordinate comprehensive efforts to increase access for underrepresented students to postsecondary education.



# Appendix C

## The California Academic Partnership Program (CAPP)

### Introduction

The California Academic Partnership Program (CAPP) is a state-established and state-funded program involving public schools (grades 6 through 12), the California Community Colleges, the California State University, the University of California, and independent colleges and universities. CAPP funds curriculum development and assessment partnerships in accordance with its goal, described in its legislative charter (Assembly Bill 2398, Hughes), of developing "cooperative efforts to improve the academic quality of public secondary schools with the objective of improving the preparation of all students for college."

CAPP is based on the premise that partnerships of committed secondary teachers and administrators, working together with postsecondary education faculty and administrators, can improve the curriculum and positively affect student preparation for college. Therefore, CAPP does not have a "program" that all its projects must follow. Rather, it supports local educational leaders in their search for more effective ways to serve the academic needs of their students, especially those students from groups underrepresented in postsecondary education.

This report is submitted in response to the California Postsecondary Education Commission's request for information for its "Final Report on Effectiveness of Intersegmental Student Preparation Programs." It focuses on the impact of the curriculum development projects CAPP funded during its 1987-90 cycle, providing information on the third and final year of those projects. Nine of the ten projects were three-year projects which began and concluded during the cycle; the tenth project was a two-year project which began in 1988-89. A new cycle of projects began in fall, 1990, with thirteen projects. Owing to their statewide (rather than local project) approach, information about CAPP assessment projects is not included within the scope of this report.

Data in this report are from two sources, the Evaluation and Training Institute and a qualitative study conducted by Dennis J. Galligani. All CAPP partnerships are subjected to annual, external evaluation. The Evaluation and Training Institute (ETI), an independent evaluator not associated with participating schools or colleges, was contracted by the California State University to conduct an external evaluation of the program during the 1987-90 cycle. The intent of the evaluation was to ensure that there were clear and measurable data with which to assess the impact of the second set of CAPP-funded projects. *California Academic Partnership Program External Evaluator's Cumulative Report, 1987-90* summarizes the results of that three-year evaluation.

The CAPP Advisory Committee determined that a qualitative evaluation focused on gleaned from the project partners themselves what they found successful in the development and enhancement of their partnership activities would serve as an important adjunct to the quantitative data collected by the external evaluators. The resulting report is based on information obtained through focus group discussions by partnership representatives. Results of the studies conducted by Dennis J. Galligani at the end of each of the three-year funding cycles are found in *Effective Relationships for School/College Partnerships, 1984-87*, and *Achieving Academic Excellence Through School/College Partnerships, 1987-90*.

## Impact of Program Components

For his qualitative evaluation of the California Academic Partnership Program's projects, Dennis J. Galligan collected information about them from focus group discussions by partnership representatives attending a full-day evaluation workshop. He summarized the results in *Effective Relationships for School/College Partnerships, 1984-87, and Achieving Academic Excellence Through School/College Partnerships, 1987-90* (hereafter referred to as the Galligan Report). Of particular interest to CPEC's present study is the section which includes responses to the question, "What is the best way to target academic preparation efforts for underrepresented students?"

Selection criteria for the partnership projects targeted geographical areas where large numbers of underrepresented students could be served. Therefore, part of the question regarding how underrepresented students could be targeted was already answered through the CAPP selection process. The qualitative evaluation identified ways in which underrepresented students could be encouraged to become involved in these efforts.

Responses to the question about academic efforts for underrepresented students yielded differing results in the first cycle of CAPP projects (1984-87) and the cycle which is the subject of this report. First cycle project participants focused on individual components of the project, such as tutoring. Second cycle participants, while mentioning some specific components, took a broader view, identifying issues which related to fundamental changes in the way curriculum is delivered to these students.

### 1984-87 Cycle

First cycle projects identified three project components which had a primary impact on underrepresented students: special tutoring, parental involvement, and summer programs.

#### (1) Specialized Tutoring

Projects found involvement of underrepresented students to be most effective when special tutoring efforts were established. They discovered that, when done appropriately, tutoring complemented the curriculum changes and built self-confidence among underrepresented students. If the tutoring was provided by other underrepresented students, an additional benefit was achieved by providing successful role models for the targeted student population. Along these same lines, it was discovered that small group tutoring was much more effective than individual one-on-one tutoring.

#### (2) Parental Involvement

Projects indicated that the involvement of parents was extremely critical to enhancing the accomplishments of the underrepresented students involved. If parents were well informed about students' needs as well as sensitive to the overall effectiveness of the project's efforts, they made a positive contribution to the overall success of the project. Additionally, some projects indicated it was worthwhile to involve community members and community associations to support these special efforts. It was suggested that project advisory committees look for additional resources from the local community to support their curriculum enhancement efforts.

#### (3) Summer Programs

The primary enhancement strategy to serve underrepresented students was providing summer programs for these students. Some projects indicated that these programs were most successful when the students could reside at the postsecondary institutions; others found that the summer programs were most successful as commuter programs at the local community college. The important factors were having an intensive summer academic effort and bringing the student to the postsecondary site.

Additionally, it was noted that involving students in the postsecondary institution's science laboratories often demystified the notion of science and, in fact, increased students' interest in scientific inquiry. Similarly, it was learned that the summer between completing the eighth grade and beginning high school was a very effective time to provide a summer basic skills program.

In addition to the three primary elements for assisting the targeted underrepresented students, a variety of other factors were identified as being of secondary importance in involving underrepresented students. These included:

- enhanced self-image (brought about as a result of student involvement in these special efforts)
- perceptions of individuals who are successful (i.e., who showed that they could succeed at college preparatory work)
- critical college preparation courses (the curriculum enhancement effort should be centered on course content and sequencing of these courses)
- coordination with other underrepresented student efforts (can significantly strengthen each program's ability to assist underrepresented students)
- utilization of college/university role models (helps students decide if postsecondary education is worth the effort)
- transitional course between sixth and seventh grade (provides orientation and an introduction to academic expectations of junior high school)
- teacher referrals (effective identification of student-participants in these projects was seen, in some cases, to be directly related to the willingness of faculty to refer students)
- counselor referrals (utilization of both faculty and counselor referrals was seen as the best way of involving underrepresented students in special curricular efforts)
- raising the consciousness regarding underrepresented student needs (having a CAPP project effectively served as a consciousness raising activity for faculty and administrators about the specific needs of these students as well as students from other cultures not targeted in the projects).

### 1987-90 Cycle

When the qualitative study was repeated with participants in the second cycle of CAPP projects, report author Galligan observed, "It is apparent from the comments [of the participants] that much more attention was paid to involving and serving underrepresented students by the second set of CAPP projects than by the first...The second set of projects, utilizing what had been learned earlier about effective partnership organizations, worked to a higher degree of complexity and involvement with such issues as service to underrepresented students and their parents." (p. 70)

In the 1990 qualitative study two items emerged as most pervasive when participants responded to the question "What is the best way to target academic preparation efforts for underrepresented students?." The first item was suggested by over two-thirds of the respondents, while the second item was indicated by approximately half of the respondents.

#### **(1) School Population Served**

The most important aspect of serving underrepresented students is that the partnership activities need to be of benefit to the whole school population. That is, they are to be "inclusive --not exclusive."

Projects defined a multiple strategy approach to provide services to underrepresented students, again in the context of service to all students. It was felt that the curriculum enhancement efforts in general should serve all students, while support activities were appropriately focused on underrepresented students. Participants concluded that underrepresented students could be served most effectively in what is defined as "enrichment activities" and "academic support activities." Enrichment activities include field trips, mentors (both students from postsecondary institutions as well as faculty or administrators within the schools), and a special emphasis on

student clubs. Academic support services, most importantly tutors, but in addition, academic advising and special summer help, were also indicated by a number of participants. An important component of these "special services" is to reward teachers who become involved in providing these services.

(2) Abolishment of "Tracking"

The second element was the abolishment of "tracking" throughout the schools, including at the elementary school levels. Project partners specifically talked about how postsecondary faculty can work with school faculty to break down the practice of assigning students to particular classes based on their ability or achievement levels. They also discussed how postsecondary faculty can help schools establish ways students can learn from each other in academically heterogeneous groups. Abolishing institutionalized, negative expectations of students as they move through the system was strongly urged. Partners stressed the importance of carrying out these efforts at the school site with the local environment taken into account. (Galligan Report, p. 70)

There were three other items that partners indicated would assist in the development of a focus on the success of underrepresented students. These are:

- staff development for school faculty regarding interactions in multicultural classrooms; it was suggested that teachers who successfully carry this out share their expertise with both school and postsecondary faculty;
- the importance of building in activities that recognize the multicultural nature of classrooms and focus on enabling students to learn each other's cultures and to support each other as individuals; and
- the need to begin the above activities earlier; the third grade was most often mentioned as a starting point to begin the breakdown of stereotypes and the cycle of failure that underrepresented students become caught up in. (Galligan Report, pp. 70-71)

### Program Effectiveness

Since the California Academic Partnership Program (CAPP) began its second funding cycle in 1987-88, outcome data for this report were not available until 1991. The following data are from the multi-year evaluation of the program (*California Academic Partnership Program External Evaluator's Cumulative Report, 1987-90*), the design for which was prepared by the external evaluator, Evaluation and Training Institute (ETI), and approved by the California Postsecondary Education Commission. In the following section this report will be identified as the ETI Report.

**Program Objective #1:** To establish curriculum development projects which address improvements in secondary school curriculum and the ability of students to benefit from these improvements.

**Evidence of Effectiveness:**

- 1 Improvements in target curriculum in participating junior and senior high schools

According to program external evaluators (ETI-Report, p. iii), CAPP project activities have improved curriculum and instructional practices. Specifically, CAPP has enabled the establishment of new courses, the revision and enhancement of curriculum, and opportunities for staff development needed to plan and implement curricular changes.

The fact that the curriculum developed in CAPP projects has been institutionalized in virtually every project is perhaps the best evidence of the effectiveness of the projects. Thus the impact of the project continues well beyond the life of the funding.

Curriculum areas of the ten 1987-90 CAPP curriculum projects are as follows (some projects involved several curricular areas)

English:	7
Math:	6
Science	6
Social Sciences:	6
Foreign Language:	1

The external evaluators concluded "...the CAPP partnerships, taken as a whole, provided curriculum revision and enhancement in all major curricular areas of the college preparatory curriculum as per the legislative intent of the CAPP program." (ETI Report, p. 31).

## 2 Improvement in student achievement in the target curricular areas

With regard to student achievement in target curricular areas, ETI concluded "As demonstrated by this increased performance on standardized tests, CAPP students have become better prepared for baccalaureate work, in accordance with the legislative mandate of the CAPP program." (p. 26) Overall, the percentile test scores of CAPP students increased from the 58.9 percentile to the 62.6 percentile across the three year period.

Increases in average nationally normed standardized test scores were also seen for the targeted subject areas: from the 72.4 percentile to the 79.2 percentile in mathematics; from the 40.2 percentile to the 45.2 percentile in science; from the 52.6 percentile to the 54.9 percentile in English/Language Arts; and from the 70.3 percentile to the 70.9 percentile in social studies. It is particularly noteworthy that the greatest gains were made in "difficult" subjects like mathematics and science. Overall the gains may seem small, but when one considers that CAPP students are generally academically less well prepared and perhaps less motivated than their counterparts in the school and that they are taking exams they would not have been likely to have taken except for CAPP, these increases take on new meaning.

**Program Objective #2:** To implement projects utilizing partnerships between K-12 districts and postsecondary institutions which result in students being better prepared for college, especially those students underrepresented in postsecondary education.

**Evidence of Effectiveness:**

### 1 Evidence of functioning partnerships

On the subject of CAPP's ability to establish functioning partnerships the external evaluators concluded "Across the three year funding period, the CAPP projects

demonstrated broad intersegmental collaborative efforts, with 71 partners from all educational segments in California participating in CAPP partnerships." During the three year cycle the partners included 35 public secondary schools, 14 school districts, and 22 postsecondary institutions.

Three key findings of the external evaluators illustrate the solid school-college collaborative efforts established by the 1987-90 cycle of CAPP projects:

- The partnerships laid the foundation for long term working relationships among project personnel and partner institutions.
- A strong sense of ownership and commitment was established, with the firm leadership of individual project directors, to provide communication opportunities for all project participants, and
- The partnership experience served to leverage other funding for CAPP-related activities and other joint projects, demonstrating the development of viable, working partnerships to continue beyond CAPP funding.

The Galligani Report suggests another dimension of the impact of partnerships: The skills learned about collaborating between schools and colleges were utilized in working with parents, corporations, etc. The basic partnership skills "are transportable to other constituents." (p. 73)

## 2. Improvement in student achievement in target curriculum

According to the ETI Report, "Outcome data measures in this three-year evaluation of CAPP indicate solid progress toward the goal of improved preparation for postsecondary education." (p. 25) This topic was further addressed above.

## 3. Increase in number of underrepresented students enrolled in project schools' college preparatory coursework and postsecondary institutions

The external evaluator reported that the majority of CAPP students at the close of the 1987-90 funding cycle were enrolled in college preparatory courses or were enrolled in postsecondary institutions, in keeping with the legislative goal of the CAPP program. Approximately 80 percent of CAPP students enrolled in secondary schools at the end of the funding cycle were also enrolled in college preparatory courses. Of those CAPP students completing secondary school at the end of the 1987-90 cycle, 83 percent were enrolled in postsecondary institutions the year following high school graduation. Approximately half of these students were enrolled in four-year institutions, and half in community colleges. This compares with a college-going rate of just 54 percent for public high school graduates statewide in fall 1989. (ETI Report, p. 65)

The percentage of underrepresented students in CAPP projects increased in three key areas between 1987 and 1990: enrollment in college preparatory classes, completion of the college preparatory course sequence and graduation from secondary schools. (ETI Report, p. 28-30)

- Nearly 69 percent of students at CAPP schools were from ethnic groups underrepresented in postsecondary education (34,758 students), compared to 42 percent of students in grades 6 to 12 from these groups statewide (1,005,356).

- When compared to statewide figures, the percentage of graduates from underrepresented ethnic groups at CAPP schools was nearly twice that for all schools statewide. Specifically, the percentage of all graduates at CAPP schools from underrepresented ethnic groups increased from nearly 50 percent in 1987-88 (2,950 students) to 54 percent in 1989-90 (3,140 students), compared to a statewide increase of from 28 percent (67,507 students) to 30 percent across the same period.
- The percentage of students from underrepresented ethnic groups enrolled in selected college preparatory courses at CAPP schools was nearly twice that of the enrollment figures statewide. [The courses were algebra, advanced mathematics, chemistry, and physics.] Moreover, the increase across the 1987-90 funding cycle in the percentage of students from underrepresented ethnic groups enrolled in these courses at CAPP schools ranged from 8 to 14 percentage points across the three year period, compared to increases ranging from just 2 to 4 percentage points statewide during the same period.
- Across the three-year funding period the percentage of graduates from underrepresented ethnic groups completing the "a-f" course pattern (required for admission to the University of California) at CAPP schools was greater than that at all schools statewide. Specifically, the 1989-90 program year, 23 percent of graduates from CAPP schools completing the "a-f" course requirements were Hispanic (385 students), compared to 13 percent of statewide graduates completing these requirements (7,298 students). Fourteen percent of graduates from CAPP schools completing the "a-f" course requirements were Black (231 students), compared to six percent statewide in the 1989-90 program year (3,910 students).

According to these figures, more than 5 percent of the underrepresented students completing "a-f" course patterns in the state were participants in CAPP projects. This is noteworthy when one considers that CAPP is serving approximately 3 percent of the underrepresented students in the state in grades 6-12.

#### 4 Decrease in school dropout rate

According to CAPP's external evaluators, there are strong indications that CAPP's activities are impacting the dropout rates of students (ETI Report, p. 27).

The CAPP projects provided data on the dropout rate of CAPP students and schools. These data were provided in accordance with the CBEDS definition of a high school dropout--a student who was formerly enrolled in grades 10,11, or 12; has left school for 45 consecutive school days and has not enrolled in another public or private educational institution or school program; has not re-enrolled in the school; and has not received a high school diploma or equivalency certificate. The dropout rate for those CAPP schools reporting dropout rates across the funding period declined from 10 percent in 1986-87 to 6 percent in 1989-90. The dropout rate of CAPP students (2 percent) was one-third that of the general population in schools hosting CAPP projects.

#### 5 Evaluation of project impact by participating school districts and postsecondary institutions

Perhaps the clearest evidence of the impact of the projects is the degree to which project services and curriculum have been institutionalized, as was mentioned earlier. Also of importance is the increasing matching funds provided by the partner institutions over the three years of the project. CAPP funding to individual projects decreased by approximately

7% per year in years 2 and 3 of the cycle to encourage projects to institutionalize gradually the various aspects of their work. Yet the amount of matching funds from the project partners increased from \$969,000 in 1987-88 to \$1,221,000 in 1989-90, a 21% increase. (ETI Report, p. 6). This increasing support provides concrete evidence of the value these institutions placed on the projects.

That more time is needed for these projects to become fully institutionalized is obvious. In his qualitative evaluation of CAPP, Galligani reported that projects found that five years of some solid support from the funding agency is essential. This finding is congruent with other partnership studies which suggest five years as a normal time for partnerships to develop and be institutionalized. (Galligani Report, p. 66)

CAPP has resisted five-year funding because it would tie up its development funds for too long a period. Rather, the current projects were selected based on a planning grant competition followed by a yearlong period during which the projects developed their proposals for three-year funding. The planning grants extended the life of the current projects to four years without tying up development funds, since the planning grants could be funded with the money saved by decreasing the other projects' funding, as noted above. It should be interesting to see what impact this has on outcomes of the 1990-93 projects.

#### Future Direction of the Program

Business involvement with CAPP partnerships has grown steadily over the years. It is evident among the most successful projects funded in the 1987-90 grant cycle, and important contributions have already been made to 1990-93 CAPP projects. In recognition of the changing nature and growing importance of business contributions to school improvement efforts, the CAPP Advisory Committee in 1990 established a liaison relationship with a statewide consortium of businesses committed to working collaboratively with the public schools. Over the next five years CAPP hopes to integrate private sector participation at both the program planning and policy level and at the project level. Anticipated benefits include: better understanding of the views and perspectives of the partners; coordination of programmatic initiatives to maximize their potential effectiveness and avoid duplication of effort; access to additional human and material resources to accomplish partnership goals.

## Appendix

### Report Display Updates

Information needed to update the various displays in the CPEC final report for CAPP's 1989-90 year follows. No changes are needed in Display 1 (Major Characteristics of the Nine Programs). CAPP information for Display 3 (Characteristics of the Secondary Schools Participating in the Nine Programs During 1989-90) is being provided by CPEC's Management Information System staff, using State Department of Education data. It should be noted that the same 31 public schools participated in CAPP projects in 1988-89 and 1989-90.

#### Display 2

Two changes are needed in the CAPP column to update Display 2 (Operation of the Nine Programs During 1990-91):

- (1) In the "Institutional Participants" row, change the number of independent institutions from 3 to 2.
- (2) In the "Resources" row, change the figures to:

State:	\$ 941,900
Institutional:	1,186,468
Private:	34,532
Total:	\$ 2,162,900

A word of explanation regarding differences between these figures and those of the previous year may be useful to the reader. (1) The slight increase in state funds over 1988-89 represents internal reallocation of funds and some baseline adjustments, not an overall increase in funding provided by the state. The increase reflects costs of funding grants and related services for the new cycle of CAPP projects (four demonstration and nine new projects). (2) The increased institutional support for the projects reflects district commitment to institutionalizing activities of the demonstration projects as well as supporting the new projects. (3) Perhaps the general economy helps account for the decrease in private funding, but it should also be noted that in the past CAPP projects have been more successful in attracting private funding once they had their CAPP project underway.

#### Display 4

The final five categories on Display 4 (Characteristics of the Students in the Nine Programs in 1989-90) should read:

No. of students: 17,302

#### Grade Level:

Below 7th	0.3%
7th	4.6%
8th	7.5%
9th	29.5%
10th	22.0%
11th	19.5%
12th	15.0%
Other	1.6%

Racial/Ethnic Background:

Asian	11.6%
Black	10.6%
Latino	39.2%
Native American	1.8%
White	32.9%
Other	3.9%

Gender:

Female	52.8%
Male	47.2%

Socioeconomic Status of the Household:

Mean Parental Education Index	2.49
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Percent of stu- dent participants whose families are on AFDC	15.4%
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Data for the this display (except for SES information) is from pages 74-82 of the *California Academic Partnership Program External Evaluator's Cumulative Report, 1987-90*, by the Evaluation and Training Institute, Los Angeles, California. Information for the final category on the display represents the weighted mean of the combined CAPP projects. CAPP presents these data rather than mean household income of program participants with permission from CPEC, since data needed to determine household income could not be obtained.

The total number of students (17,302) indicated above includes those students for whom demographic and outcome data were available (12,071) and those who were also directly served by the curriculum projects but who were not included in the sample on whom data were collected (5,231). In the past CAPP did not tabulate directly served no-data students; however, since these students received the same program and services as other CAPP students, they should be included so that the total can more nearly reflect an accurate picture of the number of students served.

# *Appendix D*

## **CALIFORNIA STUDENT OPPORTUNITY AND ACCESS PROGRAM**

The California Student Opportunity and Access Program (CAL-SOAP), was established by the State Legislature in 1978 to increase the accessibility of postsecondary educational opportunities to low-income high school students and assist low-income community college students to transfer to four-year institutions. The CAL-SOAP projects were to accomplish these goals by increasing the available information on the existence of postsecondary schooling and work opportunities, and by raising the achievement levels of low-income students so as to increase the numbers of these students eligible to pursue postsecondary learning opportunities. Current legislation authorizing CAL-SOAP specifically includes as part of its target population, ethnic minorities, all secondary school students (7-12), and more recently, fifth and sixth graders. It mentions services to community college students as assistance that may be offered "to the extent that project resources are available."

### **Program Description**

CAL-SOAP presently serves six geographical areas of the state. Each project is operated by a consortium of secondary and postsecondary schools and community agencies. Currently, 35 secondary school districts, 25 of the state's community colleges, 13 of the 20 California State University campuses, 7 of the 9 UC campuses, and about a dozen each of private high schools, independent colleges, and community organizations participate as CAL-SOAP consortium members.

The six CAL-SOAP projects are

- East Bay Consortium (Oakland and Richmond)
- Inland-Empire Consortium (San Bernardino and Riverside)
- San Diego Consortium
- Santa Barbara Consortium
- South Coast EOP/S Consortium (portions of L.A. and Orange Counties)
- SUCCESS Consortium (Solano and Yolo Counties)

The six projects served approximately 32,000 students and their parents during the 1990-91 fiscal year and accomplished their goals by providing the local target population with tutoring, academic advisement, financial aid workshops, campus field trips, and printed information. Many of the projects also assist students with preparation for college admission tests, development of academic skills and career planning. Each project designs and administers its services based on local needs and have developed some innovative activities to meet these needs.

In many instances, CAL-SOAP fulfills needs which are not being met by other programs and provides much of the one-on-one attention that is needed by the target population. For the most recent year, all projects integrated a component in the financial aid workshops to discuss the availability of student loans and the responsibility of student loan borrowing.

CAL-SOAP is administered by the California Student Aid Commission with assistance from a 12 member Advisory Committee. State funding for each CAL-SOAP consortium is matched on a local level on at least a one-to-one ratio. Matching contribution comes in the form of cash, administrative support, printing, postage, overhead, and other types of "in-kind" services. The matching funds characteristic of CAL-SOAP makes it a very cost-effective program.

## **Project Descriptions**

### **East Bay Consortium**

The East Bay Consortium of Educational Institutions has been in operation for almost 12 years and serves the Oakland and Richmond areas of the San Francisco Bay area. East Bay has consistently served over 4,000 students and in 1990-91, served almost 6,000.

The vast majority of the secondary students in the area are from underrepresented ethnic groups and/or from low-income families. The Oakland Unified School District is made up of over 90 percent African American, Asian, and Hispanic students. The Richmond School District has had a similar make-up. For the current fiscal year, the Richmond School District, faced with dire financial constraints, was unable to participate with the East Bay CAL-SOAP Consortium.

In addition to the typical set of services provided by CAL-SOAP, the East Bay project provides informational presentations to Spanish speaking parents on college admissions and financial aid. The East Bay CAL-SOAP also sponsors a five-week intensive math, writing, and test-taking program designed for junior high school students. The students who participate in this intensive program are evaluated and monitored and have shown remarkable improvement in test-taking skills, writing skills, Algebra readiness and grade point averages.

### **Inland-Empire Consortium**

The Inland-Empire Consortium is the newest of the CAL-SOAP projects, currently in its fourth year of operation. It serves San Bernardino and Riverside Counties - two of the fastest growing areas of the state covering over 17 percent of the state's geography. The growth patterns for minorities in this area far exceed the general growth pattern for the two counties.

The Inland-Empire Consortium served almost 3,500 students and their parents during 1990-91 by providing a full complement of services including tutoring in math, English, and ESL; college admissions counseling; college campus visits, financial aid workshops; transcript evaluations and more. In particular, the tutoring component has proven particularly effective in raising grades based on an analysis of the performance of the students tutored.

### **San Diego Consortium**

The San Diego Consortium has operated along the state's southern most coast since 1979 and has averaged service to over 8,000 students annually. The San Diego CAL-SOAP services are divided between the advisement and academic support components. The advisement component concentrates its efforts on informational materials, college test preparation, various workshops, and college nights. The academic support component provides tutorial assistance, campus visits, skill development classes, and college/career workshops.

The San Diego CAL-SOAP has been highly successful in coordinating intersegmental outreach efforts, in the area. In its coordinating efforts, it has not only kept service duplication to a minimum but has strengthened the relationship between school district and postsecondary institutions. This has resulted in deepened cooperation between colleges.

Students receiving CAL-SOAP services from the San Diego Consortium during the 1989-90 academic year perceived that their academic skills had improved by an average of 45 percent in English, Science, Math, and Social Science. In addition, 59 percent stated that their interest in continuing their education had improved.

### **Santa Barbara Consortium**

The Santa Barbara CAL-SOAP Consortium serves the California central coast and reaches over 5,000 students through individual and group advisement, campus visits, college and financial aid information, and career education. Despite what one might think, statistics show that almost half of the population of Santa Barbara county are classified as ethnic minority.

The Santa Barbara CAL-SOAP has two activities that they consider highly effective - the Learning Centers at high schools and the Junior High Incentive Program. The Learning Center provides intensive tutorial and motivational activities designed to increase the student's academic achievement levels. The Junior High Incentive Program selects a small group of junior high students and a junior high faculty member on a weekly basis and invites them to Santa Barbara City College for a formal lunch with the College President and a tour. This creates enthusiasm among not only the students, but the faculty members as well.

### **South Coast EOP/S Consortium**

The South Coast EOP/S Consortium serves about 5,000 low-income and underrepresented ethnic students in the Los Angeles and Orange County areas. Program services include advisement and tutorial support in advanced Math, Language, Science, and Social Studies, career planning and testing; workshops providing college and financial aid information, and residential programs.

The South Coast CAL-SOAP utilized some of its 12th grade participants as peer counselors and have found that, in addition to helping others, the peer counselors tend to be highly motivated, and enroll at a college or university at much higher rates. These peer counselors assist their fellow students on financial aid, completing college applications, and preparing for the SAT.

### **SUCCESS Consortium**

The Solano University and Community College Educational Support Services Consortium (SUCCESS) serves about 3,000 students annually in primarily non-urban areas of Yolo and Solano Counties with an agricultural economic base. Its location, however, has evolved into a bedroom community for both Sacramento and the San Francisco Bay area and as a result, has experienced rapid industrial and suburban growth. With this growth, the school-age population has also grown. Because of the rural nature of the service area, SUCCESS has been responsible for developing outreach services where none existed before.

Analysis of a survey conducted by SUCCESS reveal that the consortium's central services - individual advisement, tutoring, and campus visits - were helpful in the students' achievement in school and that working in the small groups or on an individual basis with a counselor aide was particularly helpful.

### **Evaluative Information**

Section 65961 of the Education Code states that CAL-SOAP "projects shall primarily (1) increase the availability of information for low-income and ethnic minority students on the existence of postsecondary schooling and work opportunities, and (2) raise the achievement levels of low-income and ethnic minority students so as to increase the number of high school graduates eligible to pursue postsecondary learning opportunities." It has long since been accepted that college-going rates are the primary measure of success of CAL-SOAP, for if the CAL-SOAP efforts are successful and the targeted students are better prepared academically, socially and psychologically, they will matriculate into postsecondary education.

The college-going rates for students participating in CAL-SOAP has consistently exceeded the statewide college-going rates, and in 1989, exceeded the statewide rate by 9.3 percent. The trend has shown that this margin is growing, owing to the effectiveness and refinement of CAL-SOAP services. Attachment A details the 1989 college going rates for CAL-SOAP.

Not included, but significant in the measurement of CAL-SOAP success, is the effect on students to continue on to postsecondary institutions other than those included in the statewide rate. The statewide rate measures attendance at the three public postsecondary institutions and private 4-year institutions. Not included is the matriculation to vocational/technical or out-of-state schools. Many African-Americans, a group which comprises a significant portion of CAL-SOAP's target population, go on to traditional Black colleges and universities, none of which are in California. Others may be influenced to go on to postsecondary education but find a vocational or technical school more suitable. Still others, when faced with this harsh reality of financing an education, opt to go on to a short military career first before pursuing postsecondary education, a decision that may also have been influenced by CAL-SOAP participation.

While the legislation requires CAL-SOAP to increase the number of high school graduates eligible to pursue postsecondary education, it must first increase the number of high school graduates. Many of the target student population have the same profile as the high school drop-out. In areas where the local industry provides jobs that do not require a college degree but do require a high school diploma, the CAL-SOAP influence may exhibit another level of success - to first prepare students to persevere and to become productive. Only then can CAL-SOAP prepare them for postsecondary education.

In short, while the college-going rates for CAL-SOAP exceed the statewide rate and thus provide a significant measure of success, CAL-SOAP succeeds in other areas as well that as yet, have not been measured.

#### **Relationships Between Program Components and Student Achievement and Perceptions**

In the Spring of 1991, the CAL-SOAP projects administered a survey to over 3,000 participants in an effort to measure the effectiveness of program components. The survey requested demographic information as well as activities and perceptions of the activities. Attachment B summarizes the results of the survey.

#### **Demographics**

The vast majority of these surveyed were in the 11th (10.09%) or 12th (67.95%) grade. Those who identified themselves as Latino or Hispanic comprised the largest ethnic group (42.45%) with Blacks/African-Americans as the second largest (21.67%). Females outnumbered males five to four. Income information to quantify the number participants from low-income backgrounds was not requested since it was felt that many either would not know or would not want to divulge that type of information.

About half of those who responded indicated that their fathers had not attended any college with about equal amounts having graduated from high school as did not. Just over 56 percent had mothers in the same category with slightly more than half not having completed high school as those who did (29.15% vs 27.45%). It is significant that whereas only 39.52% of fathers and 35.28% of mothers had some college, graduated from four years of college or held a graduate degree, the CAL-SOAP college-going rate for California public and 4-year private colleges is about 65%. It is clear that through CAL-SOAP efforts, many more students are being encouraged on to postsecondary education, and are going, than the prior generation. Parents with college experience tend to encourage college attendance in their children and provide the financial and social means to do so. Conversely, parents who do not have benefit of the college experience tend not to provide the encouragement, may not be able to provide a home life conducive to academics and may even discourage college attendance.

Page two of the survey results indicated the frequency of various CAL-SOAP activities that students participated in or simply whether or not a student participated in an activity. It should be noted that the frequency of participation is dependent on a number of factors, e.g., frequency that the activity is offered, the limitation on the number of students who may participate in a given activity, and the appropriateness of the activity for a given student. Not surprising is the fact that the lowest number of nonparticipation is meeting with college peer advisors.

#### Meeting With College Peer Advisors

Over half of the students (52%) met with advisors at least once per month, or at least nine times per year. This type of individualized attention promotes enthusiasm and interest among students, helps them to stay on the academic track and a positive social track, and is considered helpful or very helpful by over 93 percent of those participating. The individualized attention and the quality of the peer advisors is the most often cited reason for CAL-SOAP success by the CAL-SOAP directors.

#### Field Trips

Field trips to college campuses serve as an activity which places students directly in the college environment and introduces them to college life. By familiarizing students to the college scene, their fears and anxieties may be eliminated as well as motivate them to become part of that life. About half of the students who responded to the survey participated in the college field trips. Over 90 percent of those who participated felt that this activity was very helpful or somewhat helpful.

#### Career Workshops

Career workshops are designed to broaden students' awareness of their interests and possible careers that are related to these interests. The different types of jobs are discussed along with educational requirements. In many cases, professionals in the field donate their time to act as role models, describe personal experiences and motivate, as well as inform students of life after high school. Just under half of the survey respondents participated in the career workshops. Over 80 percent of the participants considered the experience very helpful or somewhat helpful. Less than 4 percent felt it not helpful.

#### SAT Workshops

SAT preparation workshops are designed to assist students in understanding the format of formalized and standardized test-taking, particularly the Scholastic Aptitude Test. The SAT is one of the all-important measures of student achievements and thus, is used by many colleges and universities as part of the entrance and acceptance requirements. Because of the timing of the college application process, SAT's must be taken fairly early in a student's senior year and is generally taken by high school seniors. As a consequence, only about one-third of survey respondents participated in this activity. Over 80 percent considered the SAT workshops as very helpful or somewhat helpful.

#### Meeting With College Representatives/Attending College Fairs

CAL-SOAP coordinates efforts to ensure that their students have the opportunity to meet with college representatives who visit schools to provide information regarding their specific institutions. By attending these activities, either in small group presentations with individual college representatives or in large groups with multiple representatives, a-la college fair, students are exposed to many different options - options that students may not have even considered. College representatives provide literature about their schools, entrance requirements, profiles of target students and possible financial arrangements including scholarships. About 60 percent of the respondents met with college representatives while almost 1000 students attended college fairs. Almost 90 percent felt that meetings with college representatives very helpful or somewhat helpful while slightly less (86%) felt the same about college fairs. This is not surprising since the smaller groups and individual meetings are seen as more effective.

## Financial Aid Workshop

Financing a college education has always presented an obstacle to many when considering college. Financial aid workshops help to demystify the financial aspects of paying for college and provide some real solutions to this obstacle. The financial aid workshops discuss the types and sources of aid, the application process and the eligibility criteria of some of the more common types. In addition, student loan availability and borrower responsibilities are discussed. About 45 percent of the respondents attended financial aid workshops. Over 85 percent felt the workshops were very helpful or somewhat helpful. Interestingly, less than three percent felt the activity was not helpful. Almost 12 percent were not sure, possibly because of the somewhat complex concepts of finance and financial aid.

## Transcript Analysis

CAL-SOAP coordinates academic transcript analysis in order to review student grade point averages and the courses taken. The analysis is designed to inform participants of what courses still need to be taken and what grades need to be achieved to become eligible for admittance to the University of California, the California State University, or any of the many Independent Colleges and Universities in the state. Only about 25 percent of the respondents received transcript analysis services. (The survey results reveal discrepant data, perhaps because the nomenclature of the activity, as indicated on the survey, may not have been familiar with the respondent.) However, for those who did receive this service, over 85 percent felt it was very helpful or somewhat helpful.

## Behavioral Changes

All of the activities outlined above, as well as activities not mentioned in this report, have had a profound effect on the students participating in the survey as indicated by the student perceptions in attitude and behavior. As mentioned earlier, completing high school is a precursor to matriculating to college. Over 52 percent of the respondents report an increased interest in completing high school and about 63 percent report an increased interest in going to college. Sparking this interest is a major factor in motivating students to succeed. Those who report no change in interest are probably those who were already planning to complete high school and/or attend college.

To prepare students for college, CAL-SOAP provides the opportunities to receive information about college, financing college, and preparing for college. These activities have been significant in that 52 percent of survey respondents report an increased interest in getting good grades, almost 40 percent actually are getting better grades, about 28 percent are taking more college preparatory courses, and over two-thirds report having an increase in knowledge about what it takes to prepare for college. Clearly, CAL-SOAP is successful in informing and motivating students. In addition, over half of the respondents report increased knowledge of career and college choices; choices that they would not have been able to make had they not participated in CAL-SOAP. Equally significant is the perception of almost half of those responding to the survey who felt their parents knew more of what it took to prepare for college as a result of CAL-SOAP. In many cases, it is the parents' attitude and knowledge that mold a student's direction and enable him or her to succeed. Over 90 percent of the respondents' parents are aware of their child's participation in CAL-SOAP.

## **Fiscal History**

As mentioned earlier, funding for CAL-SOAP comes from a combination of state money and matching contributions. The matching contributions are made by the consortium members as well as many local businesses. CAL-SOAP legislation requires local matching contributions on at least a 1 to 1 ratio for each project with an overall program goal of 1.5 to 1. In addition, all new projects authorized after July 1, 1989, are required to provide equal matching resources and are encouraged to increase the matching resources to a 1.5 to 1 ratio after the third year of operation. The very nature of CAL-SOAP funding makes it one of the most cost-effective programs of its type in existence today.

The table below summarizes the annual CAL-SOAP funding for the past 10 years.

<u>Year</u>	<u>State Funds</u>	<u>Matching Contributions</u>	<u>Total</u>	<u>Ratio</u>
1982-83	\$ 314,225	\$ 354,170	\$ 668,395	1.13
1983-84	\$ 327,987	\$ 398,566	\$ 726,553	1.22
1984-85	\$ 447,787	\$ 605,546	\$ 1,053,333	1.35
1985-86	\$ 497,000	\$ 660,923	\$ 1,157,923	1.33
1986-87	\$ 497,000	\$ 661,411	\$ 1,158,411	1.33
1987-88	\$ 497,000	\$ 780,000	\$ 1,277,000	1.57
1988-89	\$ 577,000	\$ 800,000	\$ 1,377,000	1.39
1989-90	\$ 577,000	\$ 976,581	\$ 1,553,581	1.69
1990-91	\$ 577,000	\$ 1,020,523	\$ 1,597,523	1.77
1991-92	\$ 637,000	\$ 1,039,328	\$ 1,676,328	1.63

As the table indicates, CAL-SOAP has been highly successful in providing matching funds. For the 1991-92 fiscal year, the augmentation in state funding came from the Student Aid Commission's loan reserve fund with the amount authorized from the state general fund remaining constant for the past four years.

## **Future Direction**

As CAL-SOAP evolves and refines its services, it must also plan for future changes. Population trends change necessitating assistance to areas that do not currently have services. New innovative strategies to motivate and prepare students for postsecondary education must be employed. Services to address newly recognized problems must be developed and implemented. A renewed effort must be made to strive for the goals set forth by Assembly Concurrent Resolution 83 - enhancing the participation and success in postsecondary education of California's targeted student groups.

In 1990, the Legislature passed Assembly Bill 3237 (Chacon) which directs the Student Aid Commission to develop a proposed strategy for the phased expansion of CAL-SOAP. Commission staff have developed a plan which calls for an expansion to an additional five projects to be selected on a competitive bid process and to be implemented over a period of approximately eight and one-half years. In addition, the Legislature passed Assembly Bill 858 (Allen) which authorizes the program to provide services to primary school students, particularly 5th and 6th grade students.

During the next five years, CAL-SOAP hopes to.

- Commence implementation of the expansion plan for CAL-SOAP, to serve more sites with more comprehensive services,
- Seek funding for full-time personnel to support the program, and
- Provide more adequate funding for existing projects.

In the 1992-93 fiscal year, Governor Wilson implemented the budget provisions under Proposition 98 resulting in a proposal to augment the CAL-SOAP budget by \$500,000. The plans for these funds have not been established as of this writing, however, it may enable the Student Aid Commission to begin implementation of the expansion plan.

## ATTACHMENT A

**CALIFORNIA AND CAL-SOAP  
FALL COLLEGE-GOING RATES  
1989**

<b>Segment</b>	<b>Statewide *</b>	<b>East Bay</b>	<b>Solano</b>	<b>Santa Barbara</b>	<b>San Diego</b>	<b>South Coast</b>	<b>Inland Empire</b>	<b>Total CAL-SOAP</b>
	<b>(N = 268,983)</b>	<b>(N = 319)</b>	<b>(N = 233)</b>	<b>(N = 264)</b>	<b>(N = 3,475)</b>	<b>(N = 543)</b>	<b>(N = 383)</b>	<b>(N = 5,217)</b>
University of California	7.3%	33.9%	16.3%	9.1%	5.2%	21.0%	7.0%	9.4%
California State Univ.	10.8%	12.5%	17.6%	1.5%	10.6%	32.0%	13.0%	13.0%
California Community Colleges	35.6%	13.2%	31.3%	44.3%	39.1%	35.0%	59.0%	38.5%
Independent Institutions	2.0%	1.6%	4.7%	1.9%	3.6%	10.0%	4.0%	4.1%
<b>Total Collegiate</b>	<b>55.7%</b>	<b>61.2%</b>	<b>69.9%</b>	<b>56.8%</b>	<b>58.5%</b>	<b>98.0%</b>	<b>83.0%</b>	<b>65.0%</b>

\*Source: California Postsecondary Education Commission 1989 Update "California College Going Rates"

## CAL-SOAP SURVEY

Demographics									
Grade	6	7	8	9	10	11	12	Total	
Number	5	138	233	137	153	306	2061	3033	
%	16	4.55	7.68	4.52	5.04	10.09	67.95	100	
Ethnicity	Black	Latino/ Hispanic	Native American	White	Asian	Filipino	Pacific Islander	Other	Total
Number	663	1299	87	276	342	236	39	118	3060
%	21.67	42.45	2.84	9.02	11.18	7.71	1.27	3.86	100

Asian = Korean, Chinese, Japanese, Southeast Asian

Gender	Male	Female	Total
Number	1065	1352	2417
%	44.06	55.94	100

Parents Education Level	Did Not Grad. H.S.	H.S. Grad.	Some College	4 Year College Grad.	Grad. Degree	Not Sure Don't Know	Total
Father	578	607	472	251	212	246	2366
%	24.43	25.66	19.95	10.61	8.96	10.40	100
Mother	700	659	492	234	133	183	2401
%	29.15	27.45	20.49	9.75	5.54	7.62	100

		Activities						Total
		More Than 1/Week	About 1/Week	About Every 2 Weeks	About 1/Month	Less Than 1/Mo	Never/ Doesn't Apply	
A) Meet With College Peer Advisor	#	212	274	348	733	785	592	2944
	%	7.20	9.31	11.82	24.90	26.66	20.11	100
B) Trips To College Campus	#	31	19	43	227	908	1380	2608
	%	1.19	.73	1.65	8.70	34.82	52.91	100
C) Work With Tutor	#	101	106	51	57	78	594	987
	%	10.23	10.74	5.17	5.78	7.90	60.18	100
D) Career Workshop	#	27	44	66	217	601	1603	2558
	%	1.06	1.72	2.58	8.48	23.49	62.67	100
E) SAT Preparation Workshop	#	28	41	54	142	401	1523	2189
	%	1.28	1.87	2.47	6.49	18.32	69.58	100
F) General Workshops	#	7	6	10	30	131	451	635
	%	1.10	.94	1.57	4.72	20.63	71.02	100
G) Meet With College Representatives	#	44	57	132	386	843	1116	2578
	%	1.71	2.21	5.12	14.97	32.70	43.29	100
H) Newsletter	#	25	34	90	375	549	1177	2250
	%	1.11	1.51	4.00	16.67	24.40	52.31	100
		Yes		No		Total		
I) Financial Aid Workshop	#	1135		1422		2557		
	%	44.39		55.61		100		
J) Parent Events	#	459		1987		2446		
	%	18.77		81.23		100		
K) College Fair	#	838		1474		2312		
	%	36.25		63.75		100		
L) Financial Aid Mailed Home	#	1052		1249		2301		
	%	45.72		54.28		100		
M) UC Transcript Field Evaluation	#	302		1778		2080		
	%	14.52		85.48		100		
N) CSU Day	#	297		303		600		
	%	49.5		50.5		100		
O) Other Activities	#	483		1159		1642		
	%	29.42		70.58		100		

Perceptions Of Activities (% = Percent Of These Participating)						(% = Percent Of Total)		
Activity		Very Helpful	Somewhat Helpful	Not Helpful	Not Sure	Sub Total	Did Not Participate	Total
A) Meeting With Advisor	#	1165	880	29	105	2179	480	2659
	%	53.46	40.39	1.33	4.82	81.95	18.05	100
B) Trips To College	#	850	639	48	100	1637	1077	2714
	%	51.92	39.03	2.39	6.11	60.32	39.68	100
C) Career Workshops	#	492	516	48	183	1239	1338	2577
	%	39.71	41.65	3.87	14.77	48.08	51.92	100
D) SAT Prep. Workshops	#	330	373	50	113	866	1355	2221
	%	38.11	43.07	5.77	13.05	38.99	61.01	100
E) Meeting With College Reps.	#	772	618	49	103	1492	778	2270
	%	48.39	41.42	3.28	6.90	65.73	34.27	100
F) Writing Letters	#	395	667	68	231	1361	895	2256
	%	29.02	49.01	5.00	16.97	60.33	39.67	100
G) Financial Aid Workshop	#	659	356	33	139	1187	1381	2568
	%	55.52	29.99	2.78	11.71	46.22	53.78	100
H) Parents Participation In SOAP Activities	#	209	178	33	141	561	1606	2167
	%	37.25	31.73	5.88	25.13	25.89	74.11	100
I) College Fair	#	558	364	32	110	1064	1174	2238
	%	52.44	34.21	3.01	10.34	47.54	52.46	100
J) Financial Aid Material Mailed Home	#	584	356	42	153	1135	849	1984
	%	51.45	31.37	3.7	13.48	57.21	42.79	100
K) UC Field Eval. Transcript Eval.	#	249	194	35	37	515	1499	2014
	%	48.35	37.67	6.80	7.18	25.57	74.43	100
L) Summer Residential	#	86	61	29	95	271	1300	1571
	%	31.73	22.51	10.70	35.06	17.25	82.75	100
M) General Workshops	#	113	160	8	85	366	638	1004
	%	30.87	43.72	2.19	23.22	36.45	63.55	100

**Perceptions In Attitude/Behavior**

		<b>Increased</b>	<b>Same</b>	<b>Decreased</b>	<b>Not Sure</b>	<b>Total</b>	
<b>A) Interest In Completing H.S</b>	#	1421	1177	51	72	2721	i
	%	52.22	43.26	1.87	2.65	100	
<b>B) Interest In My School</b>	#	1059	1430	1.56	83	2728	
	%	38.82	52.42	5.72	3.04	100	
<b>C) Interest In Making Good Grades</b>	#	1562	1006	105	54	2727	
	%	57.28	36.89	3.85	1.98	100	
<b>D) Grades</b>	#	1094	1266	279	106	2745	
	%	39.85	46.12	10.16	3.86	100	
<b>E) Parents Knowledge For College Prep.</b>	#	1309	1040	69	304	2722	
	%	48.09	38.21	2.53	11.17	100	
<b>F) Student's Knowledge For College Prep.</b>	#	1876	655	56	141	2728	
	%	68.77	24.01	2.05	5.17	100	=
<b>G) Interest In Attending College</b>	#	1729	811	65	126	2731	=
	%	63.31	29.70	2.38	4.61	100	
<b>H) Information About Possible Colleges</b>	#	1441	994	69	218	2722	
	%	52.94	36.52	2.53	8.01	100	
<b>I) # College Prep. Courses Taken</b>	#	759	1378	96	479	2712	
	%	27.99	50.81	3.54	17.66	100	=
<b>J) Interest And Knowledge Of Career Choices</b>	#	1468	1020	26	170	2684	
	%	54.69	38.00	.97	6.33	100	
		<b>Yes</b>	<b>No</b>			<b>Total</b>	
<b>K) Do Parents Know About Your CAL- SOAP Participation</b>	#	1806	182			1988	
	%	90.85	9.15			100	

## Updates to Displays 1-4 and 6

Display 1 Major Characteristics

**Program Mission** Improve and increase the accessibility of postsecondary educational opportunities to elementary and secondary school students

Display 2 Operation

## Institutional Participants

35 School Districts  
 25 CCC Campuses  
 13 CSU Campuses  
 14 Independent Institutions

<b>Resources</b>	1990-91	1991-92
State	\$ 577,000	637,000
Institutional	\$ 1,020,523	1,039,328
Total	\$ 1,597,523	1,676,328

Display 3 Characteristics of Secondary Schools

To be Updated by CPEC

Display 4 Characteristics of Students

Number of Students Served 30,750

## Grade Level

Below Seventh	0.0%
Seventh	5.2%
Eighth	9.7%
Ninth	10.1%
Tenth	13.0%
Eleventh	18.6%
Twelfth	34.9%
Other	8.6%

## Racial/Ethnic Background

Asian	7.2%
Black	30.9%
Latino	43.1%
Native American	1.8%
White	7.4%
Other*	9.3%

\*Includes ethnic groups not identified above, e.g., Pacific Islander, Filipino, and those identified as belonging to two or more groups

Gender		
	Female	48.4%
	Male	51.6%
Socioeconomic status of household	\$ 33,989**	

\*\*Figures are based on weighted mean household incomes by zip code as provided by CPEC. However, since CAL-SOAP legislation mandates serving low-income as well as underrepresented students, actual average household incomes are much lower. For example, the weighted average household income for the Inland-Empire project was \$ 36,662 while the average household income for students served, as surveyed, was \$ 19,637.

**Display 6**                      Postsecondary Enrollment Rates for 1989 High School Graduates

Segment of Higher Education	Students in CAL-SOAP	Students in CAL-SOAP Counties	Statewide
University of California	9.4%	7.8%	7.3%
California State University	13.0%	11.1%	10.8%
California Community College	38.5%	34.7%	35.6%
California Independent Colleges	4.1%	2.1%	2.0%
Total	65.0%	55.7%	55.7%

Updates to Appendix A as provided by each of the CAL-SOAP Directors.

<u>Add/Delete</u>	School	School District	County
<b>East Bay Project</b>			
D	De Anza Senior High	Richmond Unified	Contra Costa
D	El Cerrito Senior High	Richmond Unified	Contra Costa
D	Kennedy High	Richmond Unified	Contra Costa
D	Pinole Valley High	Richmond Unified	Contra Costa
D	Richmond High	Richmond Unified	Contra Costa
<b>Inland-Empire Project</b>			
D	Bloomington High	Colton Joint Unified	San Bernardino
D	Colton High	Colton Joint Unified	San Bernardino
D	Colton Junior High	Colton Joint Unified	San Bernardino
D	Frisbie Junior High	Rialto Unified	San Bernardino
<b>San Diego Project</b>			
D	Correia Junior High	San Diego City Unified	San Diego
A	Bell Junior High	San Diego City Unified	San Diego
A	Knox Elementary	San Diego City Unified	San Diego
A	Vista High	Vista Unified	San Diego
<b>Santa Barbara Project</b>			
A	Goleta Valley Junior High	Santa Barbara High	Santa Barbara
A	La Colina Junior High	Santa Barbara High	Santa Barbara
A	La Cumbre Junior High	Santa Barbara High	Santa Barbara
A	Bishop Garcia Diego High	Santa Barbara High	Santa Barbara
<b>South Coast Project</b>			
D	Franklin High	Los Angeles Unified	Los Angeles
<b>SUCCESS Project</b>			
D	Vaca Pena Intermediate	Vacaville Unified	Solano
D	Solano Junior High	Vallejo City Unified	Solano
A	Benicia Middle	Benicia Unified	Solano
A	Country High	Vacaville Unified	Solano
A	Vallejo Junior High	Vallejo City Unified	Solano

# *Appendix E*

## **CHANGES FOR CATPP/AVID THIRD CPEC PROGRESS REPORT**

### **Display 1 Major Characteristics**

#### **College Admissions Test Preparation Pilot Program (CATPP/AVID)]**

**Program Impetus – Assembly Bill 2321 (Tanner, 1985) that expired June 30, 1988. The largest of the original projects, the San Diego-based AVID Program, continues with local funding.**

**Program Mission – Prepare students most underrepresented in postsecondary education for four year college eligibility and restructure the teaching methodology of the entire school to make college preparatory curricula accessible to almost all students.**

**Program Strategies to Fulfill Mission (add "• Daily English class instruction")**  
**Also add - Provides coordinated staff development and curriculum support based on the California frameworks coupled with specific student achievement goals.**

**Program Structure – Consistent format with some adaptation to site needs.**

**Duration at a School Site – Continuous**

**Potential Length of Time with a Student – Optimally four years or more**

## Display 2 Operation of the Nine Programs During 1990-91

### **AVID (CATPP)**

**Administrative Agency – Originally California Department of Education. Statutory authority for the program expired on June 30, 1988. AVID projects continue under the sponsorship of the San Diego County Office of Education and cooperating school districts.**

**Institutional Participants – Within San Diego County – 13 districts; 1 CSU campus; and 1 UC campus (Extended program now includes 34 districts; 4 CSU campuses, 3 UC campuses)**

#### **Program Objectives –**

**To provide training to teachers in methodologies that help students to succeed in a more rigorous curriculum.**

**To improve participation in college preparatory courses.**

**To increase the number of students who enroll in postsecondary education.**

**Service Components – Assistance with college admissions test-taking and with the college admissions process. Instruction in notetaking, time management, research skills, and study skills. Counseling. Staff development. Tutoring. Motivational activities. Other support services.**

**Resources – State \$0; Institutional \$220,000; Private \$0; Total \$220,000**

## Display 3 Characteristics of the Secondary Schools Participating in the Nine Programs During 1989-90

### **AVID (CATPP)**

<b>Total Number of Schools</b>	<b>59</b>
Elementary	0
Middle/Junior High	18
Senior High	41

**Display 4 Characteristics of the Students in the Nine Programs in 1989-90**

**AVID (CATPP)**

Criteria for Student Selection – (no change)

Definition of "Served" Student – (no change)

Number of Students – 2,200

**Grade Level**

Below Seventh	0.0%
Seventh	4.7%
Eighth	11.9%
Ninth	33.3%
Tenth	26.6%
Eleventh	16.6%
Twelfth	6.8%
Other	0.0%

**Racial/Ethnic Background**

Asian	13.0%
Black	19.0%
Latino	49.0%
Native American	1.0%
White	17.0%
Other	0.0%

**Gender (estimated)**

Female	55%
Male	45%

**Socioeconomic Status of the Household    \$34,964**

## **Display 7 Progress of the College Admissions Test Preparation Program (CATPP/AVID) in Meeting Its Objectives**

### **Program Objectives**

- 1. To increase the number of students who enroll in postsecondary education.**

**Selection Criteria:** Students generally in the middle range of achievement who have been recommended by a teacher for participation.

#### **Evidence of Effectiveness:**

#### **Postsecondary Enrollment Rates for 1989 High School Graduates**

	<b>San Diego County</b>	<b>AVID</b>
University of California	7.6%	14.7%
California State University	9.1%	35.8%
California Community Colleges	36.9%	33.6%
Independent Institutions	2.9%	2.3%
<b>Total</b>	<b>56.4%</b>	<b>86.4%</b>

- 2. To provide training to teachers in methodologies that help students to succeed in a more rigorous curriculum.**

#### **Evidence of Effectiveness:**

All AVID schools participate in an extensive staff development process which includes: a week long Summer Institute, eight monthly sessions for AVID site coordinators, eight monthly sessions for AVID tutors, and fall and spring site team conferences. The AVID program was named winner of the 1990 Salute to Excellence Award for Staff Development and Leadership presented by the National Council of States on Inservice Education.

**Display 13 Postsecondary Enrollment Patterns of Graduates from Four  
Programs and All California Public High School Graduates in 1989**

**1989 CATPP/AVID  
Graduates (N = 265)**

University of California	14.7%
The California State University	35.8%
California Community Colleges	33.6%
Total California Public Postsecondary Education	84.2%
Independent California Institutions	2.3%
Total California Institutions	86.4%

Display 14 Student Performance at Schools Originally Participating in  
AVID and Statewide in 1985-86 and 1989-90

PERFORMANCE MEASURES	AVID SCHOOLS			STATEWIDE		
	1985-86	1989-90	Percent Change	1985-86	1989-90	Percent Change
Three-Year Dropout Rate	26.2%	16.4%	-37%	24.9%	21.5%	-14%
Percent of Students Enrolled in a-f Courses	34.1%	59.1%	74%	44%	47%	6%
Seniors Completing a-f Course Sequence	17.0%	33.1%	95%	28%	32%	13%
Percent Scoring at Least 450 on the Verbal Section of the SAT	10.9%	12.1%	11%	18.1%	18.7%	3%
Percent Scoring at Least 500 on the Mathematics Section of the SAT	11.3%	12.2%	8%	19.6%	20.5%	5%
Percent of Graduates Enrolling at California Public Universities	11.6%	15.7%	35%	17.3%	17.2%	-1%

## College-Going Patterns of 1989-90 Tanner Project Graduates

Information in this report is based on data from three projects, Vallejo, San Diego, and Gilroy. Twenty-two schools are included, representing 325 students involved in Tanner projects.

Average number of years in the program		2.56	
Gender	Males	144	44.3%
	Females	181	55.7%
Ethnicity.	American Indian	3	0.9%
	Asian	20	6.2%
	Black	96	29.5%
	Filipino	22	6.8%
	Hispanic	129	39.7%
	Pacific Islander	4	1.2%
	White	51	15.7%
Completed a-f requirements		312	96%
Accepted at a 4-year college		206	63.4%
Attended any 4-year college		197	61.2%
Attended a 2 or 4-year college		308	94.8%
UC campus		43	13.2%
CSU campus		105	32.3%
CCC campus		109	33.5%
Private California campus		8	2.5%
Private out-of-state campus		18	5.5%
Public out-of-state campus		25	7.7%
Vocational program		2	6%
Armed Forces		3	9%
None		9	2.8%
Unknown		5	1.5%

## **CHANGES FOR UCO THIRD CPEC PROGRESS REPORT**

### **Display 2 Operation of the Nine Programs During 1990-91**

**Administrative Agency – (no change)**

**Institutional Participants – 10 school districts; local colleges and universities**

**Program Objectives – (no change)**

**Service Components – (no change)**

**Resources – (no change)**

### **Display 3 Characteristics of the Secondary Schools Participating in the Nine Programs During 1989-90**

<b>Total Number of Schools</b>	<b>36*</b>
<b>Elementary</b>	<b>0</b>
<b>Middle/Junior High</b>	<b>0</b>
<b>Senior High</b>	<b>36</b>

**\*Although UCO programs operate primarily at the high school level, several districts identify potential UCO students and provide articulation counseling and other services at the middle school level.**

#### Display 4 Characteristics of the Students in the Nine Programs in 1989-90

##### UCO \*

Criteria for Student Selection – (no change)

Definition of "Served" Student – (no change)

Number of Students – 3148 (in responding schools)

##### Grade Level

Below Seventh	0%
Seventh	0%
Eighth	0%
Ninth	15.9%
Tenth	19.5%
Eleventh	27.1%
Twelfth	37.5%
Other	0%

##### Racial/Ethnic Background

Asian	9.5%
Black	52.7%
Latino	36.3%
Native American	0.2%
White	1.3%
Other	%

##### Gender

Female	58%
Male	42%

Socioeconomic Status of the Household \$35,965\*\*

\* All data based on twelve responding schools except Socioeconomic Status of the Household which is based on 37 high schools operating UCO programs in 1989-90.

\*\* See recommendation in attached memo

**Display 11 Progress of University and College Opportunities (UCO) in Meeting Its Objectives**

Program Objectives: (no change)

Selection Criteria: (no change)

Evidence of Effectiveness:

**College Admissions Test Involvement of California High School Graduates**

	<b>1990-91 Seniors in UCO</b>	<b>1990 California Public and Private School Graduates</b>
Percent of seniors taking the Scholastic Aptitude Test	52%	42%
Percent of Black and Latino seniors taking the Scholastic Aptitude Test	51%	36% *

\*(The 36% represents the percent of 1990 Black and Latino public and private school graduates taking SAT tests.)

**High School Course Completion, Eligibility Rates, and College-Going**

	<b>1989-90 Seniors in UCO</b>	<b>California Graduates</b>
Percent of seniors completing the "a-f" Course Pattern	58.4%	31.5% (1989)
Seniors eligible to attend the California State University	14.8%	27.5% (1986)
Percent of seniors estimated by UCO teachers to have enrolled in 4-year colleges	37.5%	
Percent of high school graduates enrolling as first-time freshmen in the University of California or California State University		17.2% (1989)*

\* Calculated by CDE for 1989 graduates

Display 14 Student Performance at Schools Originally Participating in UCO  
and Statewide in 1985-86 and 1989-90

PERFORMANCE MEASURES	UCO SCHOOLS			STATEWIDE		
	1985-86	1989-90	Percent Change	1985-86	1989-90	Percent Change
Three-Year Dropout Rate	25.2%	24.5%	-3%	24.9%	21.5%	-14%
Percent of Students Enrolled in a-f Courses	44.1%	45.0%	2%	44%	47%	6%
Seniors Completing a-f Course Sequence	24.7%	26.8%	8%	28.0%	31.5%	13%
Percent Scoring at Least 450 on the Verbal Section of the SAT	10.0%	10.3%	4%	18.1%	18.7%	3%
Percent Scoring at Least 500 on the Mathematics Section of the SAT	12.0%	12.4%	3%	19.6%	20.5%	5%
Percent of Graduates Enrolling at California Public Universities	12.5%	16.9%	35%	17.3%	17.2%	-1%



# *Appendix F*

## THE COLLEGE READINESS PROGRAM 1989-90

The College Readiness Program (CRP) is a joint effort of the California Department of Education and the California State University System. Five CSU campuses (Hayward, San Jose, Fresno, Northridge, and Dominguez Hills) participate in the program and coordinate services to 21 middle grade schools. Services provided include instruction and practice in applying problem-solving and higher order thinking skills, tutoring in mathematics and English, information about and visits to CSU campuses, presentations to parent groups regarding college financial aid programs, and other instructional and motivational experiences. The goal of the program is to set expectations for college attendance and enable students to enroll in 9th grade college preparatory courses.

The following report focuses on the fourth year of the College Readiness Program from September 1989 to June 1990. The data in this report were gathered from 15 of the 21 participating middle schools and the five CSU support campuses. The evaluator also surveyed student participants to document their attitudes toward the program. Academic data including grades, test scores and college preparatory course enrollment patterns were collected on each student participating in the College Readiness Program. The same information was also collected from a comparison sample of students who would have been admitted to the CRP had space been available.

Approximately 943 students participated in the College Readiness Program during the 1989-90 school year; 62 percent of the students were Hispanic and 36 percent were Black. About 43 percent were 7th graders, 50 percent were 8th graders, and 7 percent were enrolled in the 6th grade.

Four analyses of the enrollment patterns of students who did and did not participate in the College Readiness Program were conducted for college preparatory English, algebra I and geometry. The first analysis compared CRP 8th graders to the average 8th grader attending the same 15 schools and found that:

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- CRP students are twice as likely to be eligible for 9th grade college preparatory English and mathematics courses.

The second analysis compared CRP 8th graders to other 8th graders from the same 15 schools with similar backgrounds and academic achievement and found that:

- CRP 8th graders are twice as likely to be already enrolled in algebra I or geometry courses.

The third analysis used data submitted by 12 schools and compares CRP graduates to a group of 9th graders similar in background and academic achievement who did not participate in the College Readiness Program in the 8th grade. It was determined that:

- 63 percent of the CRP graduates received a passing grade of "C-" or better in algebra or geometry as compared to 43 percent of the students who did not participate in the College Readiness Program.
- 76 percent of the CRP graduates received a passing grade of "C-" or better in college preparatory English compared to 67 percent of the students who did not participate in the College Readiness Program.

The final analysis compared 8th grade CRP students recommended for algebra, geometry, or college preparatory English with other 8th graders in the same 15 schools who did not participate in the College Readiness Program. This analysis revealed that:

- 56 percent of the 8th grade CRP students were recommended for algebra I or geometry compared to 39 percent of the students who did not participate in the CRP.
- 66 percent of the 8th grade CRP students were enrolled in or recommended for college preparatory English compared to 50 percent of the students who did not participate in the CRP (see Display 8).

## COLLEGE READINESS PROGRAM

### Display 2 - Operation of the Program during 1990-91

<b>Administrative Agency</b>	The California State University California Department of Education
<b>Institutional Participants</b>	10 school districts 5 CSU campuses
<b>Program Objectives</b>	To increase enrollment of Black and Hispanic students in algebra and college preparatory English.  To improve student preparation and parent motivation and awareness of college.
<b>Service Components</b>	CSU interns provide academic assistance in math and English.  Parental activities.  Problem-solving instruction.  CSU campus visits.  Workshops on college attendance and financial aid.
<b>Resources:</b>	
State	\$414,910
Institutional	\$101,407
Other*	\$133,646
Total	\$649,963

\*Department of Education

Display 3 - Characteristics of Secondary Schools Participating in 1989-90

Total Number of Schools	21
Middle/Junior High	21
Total School Enrollment	23,280
Percent American Indian	82.00%
Percent Asian	7.27%
Percent African American	21.77%
Percent Latino	61.27%
Percent Caucasian	9.52%
Total 1988-89 Graduating Class	NA
Total 1988-89 Enrollment in College	NA
Total Enrollment in College	NA
Drop-Out Rate	NA
Socio-Economic Status	
Mean of Parental Education Level	2.27
Percent of Students on AFDC	26.40%

**Display 4 - Characteristics of the CRP Students in 1989-90**

<b>Criteria for Student Selection</b>	<b>Same</b>
<b>Definition of "Served" Student</b>	<b>Same</b>
<b>Number of Students</b>	<b>943</b>
<b>Grade Level</b>	
Below Seventh	7.0%
Seventh	43.0%
Eighth	50.0%
<b>Racial-Ethnic Background</b>	
American Indian	0.0%
Asian	0.0%
African American	36.0%
Hispanic	62.0%
Caucasian	0.0%
Other	2.0%
<b>Gender</b>	
Female	60.0%
Male	40.0%
<b>Mean Household Income of CRP Students</b>	<b>\$35,517*</b>

**\*See Table V attached on Mean Household Income by Zip Code on 727 CRP students.**

**Display 8 - Progress of the College Readiness Program (CRP)  
in Meeting its Objectives**

**Program Objectives:**

1. To increase enrollment of Black and Hispanic students in algebra and college preparatory English by 30.0 percent, as measured by 9th grade course enrollments.

**Selection Criteria:** Black and Hispanic middle grade students achieving at grade level in terms of achievement tests and grades along with teacher recommendations.

**Evidence of Effectiveness:**

**Recommended Ninth-Grade Course Enrollments for Eighth Graders in 15 Schools Participating in the College Readiness Program (CRP) in 1990**

	<b><u>Eighth Grade CRP Students</u></b>	<b>Comparison Group of Academically Similar Eighth Grade Students</b>
Algebra	56.0%	39.0%
College Preparatory English	66.0%	50.0%

**Ninth Grade Course Attainments of CRP Graduates and Comparison Students**

	<b><u>Ninth Grade CRP Graduates Participants</u></b>	<b>Comparison Group of Academically Similar Ninth Grade Students</b>
Enrolled & Passed Algebra	63.0%	43.0%
Enrolled & Passed College Prep English	76.0%	67.0%

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**Display 8 - continued**

2. To improve student preparation and parent motivation and awareness of college, as measured by a post-program attitude survey completed by 616 CRP students in grades 6, 7, and 8.

**Evidence of Effectiveness:**

- 90.0 percent of students participating in CRP reported an increase in their desire to attend college.
- 71.0 percent of the students reported that CRP had helped them learn and understand math better.
- 73.0 percent of the students indicated the CRP had helped them feel better about themselves.
- 65.0 percent of the students believed the CRP had helped them to improve their reading.
- more than 50 percent of the students reported the CRP had helped them to get better grades in English, math and reading.
- 85.0 percent of the students reported that being in the CRP made them more interested in getting good grades.
- 89.0 percent of the students reported the CRP had given them a better understanding about college.

## CRP STUDENT SURVEY

### Introduction

The College Readiness Program served 943 students during the 1990-91 academic year. The 21 middle schools and five CSU campuses (San Jose, Fresno, Northridge, Dominguez Hills and Hayward) implemented this program utilizing trained CSU student interns to provide academic tutoring in math and English to middle school students. A variety of program services including academic enrichment periods, Saturday college, field trips to colleges and universities, career presentations, parent events, study skills workshops, and college advisement sessions were provided.

The objective of the CRP Student Survey was to measure the relationship between the CRP "program components" and "student achievement." The CRP Student Survey was tailored after the MESA Student Survey conducted in 1989-90, and consisted of three parts. The first part asked the students how often they participated in CRP-sponsored activities such as math/English tutoring sessions, career presentations, study skills workshops, Saturday college, and field trips. The second part asked how much these CRP-sponsored activities helped students to succeed in school. The third part asked students if the CRP program had made a difference in their interest in getting good grades, their grades in math and English, their attitudes, and their feelings about themselves, their abilities, and school. A copy of the survey is included at the end of this report.

### Collection of the Survey Information

The population for the survey was the 8th grade students enrolled in 15 of the 21 participating College Readiness Program schools. The selection of 15 schools for the survey was based on the fact that their programs had been in existence since the beginning of the College Readiness Program in 1986. It was felt the students in the schools that joined the CRP Program in the 1990-91 school year had not experienced enough of the program to give meaningful and objective responses. The results from the sample population in the 15 CRP schools were used to draw inferences about the College Readiness Program participants as a whole.

Survey questionnaires were sent to the 15 CRP Middle School Coordinators for information collection, yielding an overall return rate of 72.0%.

### Survey Results Summary

Table I shows the frequency of participation for 8th grade students in the 15 College Readiness Program schools. More than 81% of the average 8th grade students attended special CRP events about once a month and at least 30%

## CRP STUDENT SURVEY - continued

attended a special event about once a week. Roughly 34% of the students attended recognition programs/events once a month. Approximately 35% of the students attended career presentations once a month. Roughly 34% of the students attended presentations about college, and study skills workshops more than once a week. Fifty-four percent of the students participated in field trips about once a month. About 26% of the students attended a Saturday college once a month. (Saturday college programs were not given at each school site.) Approximately 15% of the students attended a college night program once each month.

Table II shows the parent/average tutoring time and standard deviations for CRP participants in math and English. The 8th graders participating in the 15 CRP schools typically attended separate math and English tutoring sessions for an average of 60 minutes each week. The average student also participated in an average of 30 minutes of tutoring in reading and study skills.

Table III shows students' perception of benefits received from that participation. More than half of the students reported that their grades improved. Sixty-six percent of the respondents agreed that their feelings about school improved. About 85% of the respondents stated their interest in getting good grades improved. Seventy-three percent of the survey respondents agreed that their interest in doing homework improved. All of the participants responded that their knowledge and understanding about college had improved. Roughly three-quarters of the students stated their feelings about themselves, their abilities, and after-school activities had improved.

Table IV reflects the 8th grade CRP students' perceptions of changes in behavior or attitudes as a result of participation. The survey results show that frequency of participation was not strongly related to perceived improvement in the areas we asked students about. However, a strong pattern of results show that students who more frequently attended study skills workshops consistently reported improvement in the academic, college, and attitudinal realms.

In addition, students who felt they had improved their attitudes toward self and school reported attending more of the tutoring sessions.

## Attachments

1990-91 Eighth Grade Student Survey Data  
Table 1

Frequency of Participation in CRP Activities

<u>Activity</u>	<u>More Than Once a Week</u>	<u>About Once a Week</u>	<u>About Every Two Weeks</u>	<u>About Once a Month</u>	<u>Less Than Once A Week</u>	<u>Never Participated</u>
Special CRP Events/Activities	16.50%	12.50%	17.00%	32.00%	10.00%	12.00%
Recognition Awards/Gifts	9.27%	3.26%	4.51%	15.54%	44.61%	22.81%
Career Presentations	5.99%	11.47%	10.72%	35.16%	21.95%	14.71%
Information About College	33.92%	20.20%	11.72%	18.95%	12.97%	2.24%
Study Skills Workshops	26.84%	14.18%	8.86%	18.23%	13.42%	18.48%
Field Trips	4.76%	2.26%	5.01%	54.39%	26.82%	6.77%
Saturday College	3.74%	4.74%	5.24%	11.72%	26.18%	48.38%
Parent Nights	2.25%	1.00%	1.75%	14.50%	37.00%	43.50%

Note: The number of students responding ranges from 395 to 401 depending upon the activity in question

1990-91 Eighth Grade Student Survey Data  
Table II

Average Length of Weekly Tutoring in Minutes

Subject Area	<u>Average Tutoring Time</u>	<u>SD</u>
Mathematics	59.30 mins.	57.29
English	61.89 mins.	69.33
Reading	31.65 mins.	68.65
Study Skills	27.48 mins.	54.22

1990-91 Eighth Grade Student Survey Data  
Table III

Percentages of Students' Perception Whether or Not CRP Has Made A  
Difference to Them, Ranked By Perceived Improvement

After Joining CRP:	Improved/ Increased	Stayed the Same	Decreased/ Got Worse
Knowledge and Understanding of College	89.42%	9.82%	0.76%
Interest in Attending College	86.07%	13.43%	0.50%
Interest in Getting Good Grades	85.07%	14.18%	0.75%
Interest in Different Careers	78.46%	20.26%	1.28%
Feelings About Abilities	76.43%	21.34%	2.23%
Interest in Doing Homework	72.66%	24.30%	3.04%
Feelings About Self	72.50%	25.75%	1.75%
Feelings About After School Activities	72.21%	23.90%	3.90%
Understanding of Mathematics	70.82%	25.44%	3.74%
Understanding of English	67.92%	30.58%	1.50%
Interest in English	67.09%	31.90%	1.01%
Feelings About School	65.91%	30.58%	3.51%
Interest in Mathematics	65.37%	30.75%	3.88%
Interest in Reading	65.18%	32.44%	2.38%
Understanding of Reading	65.12%	34.30%	0.58%
Grades in English	60.70%	33.96%	5.35%
Grades in Mathematics	55.41%	37.30%	7.30%
Grades in Reading	52.46%	45.77%	1.76%

Note: The number of students responding ranges from 284 to 403 depending upon the type of improvement.

1990-91 Eighth Grade Student Survey Data  
APPENDIX

**Narrative of Survey Results**

The following lists the 1990-91 CRP survey responses of "improved" for 414 8th grade students in the CRP program. Students were asked to indicate since joining CRP: 1) whether their grades in math, English, and reading had improved, and 2) whether their understanding of math, English, and reading had improved. Additional questions were asked whether there was improvement in the following areas: in doing their homework, interest in pursuing a career, attending college, college knowledge and understanding, feelings about themselves, feelings about their abilities, feelings about after school activities, feelings about school and an overall rating of the CRP program. The complete list of survey responses and percentages is listed in Table III.

**Math Grades:** Fifty-five percent of the survey respondents stated that their grades in math improved

**Math interest:** Sixty-five percent of the survey respondents stated that their interest in math improved.

**Understanding of Math:** Seventy-one percent of the survey respondents stated that their understanding of math improved.

**English Grades:** Sixty-one percent of the survey respondents stated that their grades in English improved.

**English Interest:** Sixty-seven percent of the survey respondents stated that their interest in English improved.

**Understanding of English:** Sixty-eight percent of the survey respondents stated that their understanding of English improved.

**Reading Grades:** Fifty-two percent of the survey respondents stated that their grades in reading improved.

**Reading Interest:** Sixty-five percent of the survey respondents stated that their interest in reading improved.

**Understanding of Reading:** Sixty-five percent of the survey respondents stated that their understanding of reading improved.

1990-91 Eighth Grade Student Survey Data  
APPENDIX (con't.)

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**Getting Good Grades:** Eighty-five percent of the survey respondents stated that their interest in getting good grades improved.

**Doing Homework:** Seventy-three percent of the survey respondents stated that their interest in doing homework improved.

**Interest in Attending College:** Eighty-six percent of the survey respondents stated that their interest in attending college improved.

**College Knowledge and Understanding:** Eighty-nine percent of the survey respondents stated that their knowledge and understanding of college improved.

**Feelings About Myself:** Seventy-three percent of the survey respondents stated that their feelings about their abilities improved.

**Feelings About My Abilities:** Seventy-six percent of the survey respondents stated that their feelings about their abilities improved.

**Feelings About After School Activities:** Seventy-two percent of the survey respondents stated that their feelings about after school activities improved.

**Feelings About School:** Sixty-six percent of the survey respondents stated that their feelings about school improved.

**Overall CRP Rating:** Thirty percent of the survey respondents stated that the College Readiness Program was excellent. Fifty percent of the survey respondents stated that the College Readiness Program was good.

1990-91 Eighth Grade Student Survey Data  
Table IV

Correlations Between Participation in CRP Activities and Student Perceptions

	College Attendance:		Attitudes Toward:		
	<u>Interest</u>	<u>Knowledge/ Understanding</u>	<u>Self</u>	<u>Abilities</u>	<u>After School Activities</u>
Special CRP Events/Activities	-.036	.007	.010	.008	.124
Recognition Awards/Gifts	.041	.009	-.010	.071	.004
Career Presentations	.145	.113	.136	.143	.099
Information About College	.017	.171	.020	.010	.018
Study Skills Workshops	.133	.126	.141	.159	.212
Field Trips	.074	.055	.205	.163	.177
Saturday College	.077	.017	.163	.081	.199
Parent Nights	.162	.098	.190	.076	-.018
Days/Week Math Tutoring	-.022	.002	-.014	.011	.117
Days/Week English Tutoring	-.084	-.019	-.077	-.050	.043
Minutes/Week Math Tutoring	.013	-.017	.039	.021	-.064
Minutes/Week English Tutoring	.081	.044	.178	.164	.086
Minutes/Week Reading Tutoring	.093	.081	.138	.120	.082
Minutes/Week Study Skills Tutoring	.089	.064	.135	.091	.068
Total Tutoring Minutes/Week	.082	.052	.147	.121	.056
Tutoring Attendance	.008	.041	.215	.129	.129
					.033
					.085
					.115
					.085
					.095
					.151

Note: Correlations significant at the .05 level or below (two-tailed test) are in bold. N for individual correlations ranges from 229 to 403.

1990-91 Eighth Grade Student Survey Data  
Table IV (continued)

Correlations Between Participation in CRP Activities and Student Perceptions

	Academic Improvement in:					
	Mathematics		English		Reading	
	<u>Grades</u>	<u>Interest</u>	<u>Understanding</u>	<u>Grades</u>	<u>Interest</u>	<u>Understanding</u>
Special CRP Events/Activities	.142	.045	.117	.025	-.078	-.107
Recognition Awards/Gifts	.063	-.006	.110	.001	-.068	-.014
Career Presentations	.054	.005	.073	.094	.019	.068
Information About College	-.020	-.022	.059	.037	-.124	-.111
Study Skills Workshops	.192	.089	.206	.246	.134	.212
Field Trips	.069	.024	.141	.102	.044	.078
Saturday College	.085	.026	.029	.004	.042	.035
Parent Nights	.041	.071	.148	-.002	.091	.104
Days/Week Math Tutoring	.013	.026	.040	.016	.025	.041
Days/Week English Tutoring	.024	.038	.038	.046	-.021	.058
Minutes/Week Math Tutoring	.091	-.038	-.083	-.019	.006	-.022
Minutes/Week English Tutoring	.087	-.023	-.049	.043	.079	.103
Minutes/Week Reading Tutoring	.113	-.002	-.060	.084	.136	.164
Minutes/Week Study Skills Tutoring	.094	-.007	-.034	.056	.124	.120
Total Tutoring Minutes/Week	.116	-.021	-.066	.051	.103	.110
Tutoring Attendance	.043	.067	.076	.016	.093	.021
						.050
						.146
						.139
						.091
						.127
						.052

Note: Correlations significant at the .05 level or below (two-tailed test) are in bold. N for individual correlations ranges from 229 to 403.

COLLEGE READINESS PROGRAM  
1989-90

TABLE V

MEAN HOUSEHOLD INCOME BY ZIPCODE

CAMPUS	# OF STUDENTS	ZIPCODE	MEAN INCOME
-----	-----	-----	-----
DOMINGUEZ HILLS	12	90059	21,153
	6	90061	25,735
	1	90062	24,090
	35	90220	31,132
	57	90304	29,712
TOTAL:	111		
NORTHRIDGE	1	90002	\$20,724
	2	90011	18,838
	1	90018	23,223
	2	90019	29,807
	1	90031	25,970
	5	90037	19,936
	2	90043	34,117
	15	90044	23,656
	3	90047	32,154
	2	90301	29,365
	28	90303	32,675
	2	90304	29,712
	2	90305	39,184
	6	90746	51,701
	51	91331	37,424
	1	91340	33,301
	49	91342	43,557
	18	91352	41,521
	3	91605	36,640
TOTAL:	194		
FRESNO	41	93657	37,817
	23	93701	18,320
	7	93702	23,022
	1	93703	29,369
	2	93705	34,890
	3	93706	25,242
	1	93721	17,717
	3	93725	34,405
	18	93727	42,372
	11	93728	26,531
TOTAL:	110		

TABLE V (con't.)  
MEAN HOUSEHOLD INCOME BY ZIPCODE

CAMPUS	# OF STUDENTS	ZIPCODE	MEAN INCOME
HAYWARD	1	94132	43,001
	4	94530	45,459
	1	94572	42,444
	2	94601	26,427
	12	94602	41,244
	3	94605	38,657
	12	94606	25,726
	2	94607	19,654
	1	94608	25,265
	8	94610	38,601
	1	94619	42,789
	7	94801	25,483
	16	94804	30,947
	1	94805	37,328
TOTAL:	71		
SAN JOSE	1	95111	28,297
	2	95112	27,247
	35	95116	28,806
	6	95121	50,562
	103	95122	43,075
	70	95127	44,709
	2	95133	44,378
	22	95148	58,698
TOTAL:	241		
GRAND TOTALS:	727		
AVERAGE INCOME:		\$35,517	

NOTE: Information is not available for 1990-91 school year. Information reported for only 17 of the 21 schools and it underreports the number of students participating in the CRP.

## COLLEGE READINESS PROGRAM

### PROGRAM COMPONENTS AND STUDENT ACHIEVEMENT

1990-91

The following information reflects the analyses of grades and College Readiness Program components for 8th grade students participating in the College Readiness Program

There are no relationships between number of minutes students were tutored each week in mathematics, English, reading and study skills, and the grades CRP students received in mathematics, English and reading. This is demonstrated by the correlations in Table 1. One is significant at the .05 level (2-tailed test) All are of small magnitude (The significant correlation appears in bold italics.)

**Table 1**  
**Correlations between Length of Tutoring Session and Student Grades**

Duration of Weekly Tutoring Sessions in	Grades in:					
	Mathematics		English		Reading	
	1/91	6/91	1/91	6/91	1/91	6/91
Mathematics	.015	.002	.039	.018	.074	.036
English	.012	.003	-.015	-.014	.049	-.079
Reading	-.167	-.045	.046	.024	.056	-.087
Study Skills	-.057	-.077	<b>.111</b>	.060	-.065	-.003

There are no relationships between the number of days per week students were tutored each week in mathematics, English, and reading, and the grades CRP students received in mathematics, English and reading. This is demonstrated by the correlations in Table 2. Again only one is significant at the .05 level (2-tailed test). All are of small magnitude (The significant correlation appears in bold italics.)

**Table 2**  
**Correlations between the Number of Days/Week Tutoring Sessions were Conducted and Student Grades**

Tutoring Days Per Week in:	Grades in:					
	Mathematics		English		Reading	
	1/91	6/91	1/91	6/91	1/91	6/91
Mathematics	- .029	- .028	.022	- .003	.216	<b>-.290</b>
English	.034	.021	.117	- .047	.071	- .126

There is no relationship between the frequency with which CRP components were conducted and the grades students received. Although the correlations between the frequency of CRP components and student grades are of a slightly higher magnitude than those in Table 1, they remain relatively small given the size of the sample (N ranged from 75 to about 300, depending upon the correlation). Moreover, there is no pattern to the correlations. Given the number of correlations conducted, one would expect a number of significant results due to chance. This seems to be the most realistic way to explain the significant correlations that appear in bold italics on Table 3.

**Table 3**  
**Correlations between the Frequency of CRP Components and Student Grades**

Frequency of CRP Components	Grades in:					
	Mathematics		English		Reading	
	1/91	6/91	1/91	6/91	1/91	6/91
Special CRP Events/Activities	.046	<b>.132</b>	-.001	.037	- .043	<b>-.068</b>
Recognition Awards/Gifts	.102	<b>.169</b>	.090	-.040	.070	<b>.048</b>
Career Presentations	- .018	.006	<b>.151</b>	<b>.137</b>	.186	<b>.034</b>
Information about College	.052	.105	-.054	- .036	- .142	<b>-.062</b>
Study Skills Workshops	- .022	.085	<b>-.120</b>	- .073	-.118	<b>-.193</b>
Field Trips	-.009	<b>.122</b>	.086	.101	.000	<b>-.097</b>
Saturday College	- .065	.057	-.092	.102	.111	<b>.258</b>
Parents Nights	.005	.054	- .095	.088	.078	<b>-.053</b>

In summary, an analysis of the association between CRP Program components and students' grades in mathematics, English and reading showed few statistically significant correlations. Those significant correlations that did occur are best attributed to chance, and should not be interpreted as "program effects."

This analysis did not take into account the quality of program components, only their frequencies. The ranges of these frequencies were restricted due to the fact that most middle school CRP programs functioned in similar ways and had similar timetables. In other words, at most schools special events were held once or twice a semester, visits to a CSU campus took place once a year, etc. For correlations to attain large magnitudes, there must be adequate variance within the variables being correlated. This was, in general not the case for most of the components, given their link to the general structure of the CRP programs.

There was, however, more variance in the amount of tutoring CRP students received. The fact that tutoring time did not correlate with grades received raises two interesting questions that have obvious intuitive answers, but which can't be addressed by these analyses.

First, it appears that the impact of tutoring is more strongly linked to the quality of tutoring than it is to tutoring quantity given the findings of the "time on task" literature. (Tutoring is, among other things, one way of increasing the amount of time students spend learning.)

Second, it appears that tutoring would have an impact, not merely on the grade students receive during the time they are being tutored, but might lead them to improve their grades over time.



## **COLLEGE READINESS PROGRAM**

**(Future Directions)**

### **Item 1:**

Recent accomplishments of the College Readiness Program (CRP) as noted in the latest evaluation reveal that it has been successful in improving the academic preparation of middle-achieving 6th, 7th and 8th grade underrepresented students in middle/junior high schools. The College Readiness Program is implemented in 21 middle schools across the state and has served approximately 4,000 students since its inception in 1986.

Changes anticipated for the future include:

- ◆ increase in the funding level to include expansion of the program to serve more high minority middle schools and students, (there are many more schools that met the criteria for participation in the CRP than was money available to fund them at the program's inception),
- ◆ develop CRP academic tutoring sessions to be included during the school day,
- ◆ hire consultants from the California Math, English, and Writing Projects to support middle school teachers at each site in order to impact curriculum and instruction,
- ◆ develop tutorial videos for use with expanded tutor training seminars that include study skills, self-esteem and time management,
- ◆ arrange special seminars, workshops, for the student interns to build on their interest in teaching as a result of the CRP experience,
- ◆ hold summer institutes on CSU campuses and at off campus sites for participating CRP students to provide hands-on experiences for students-- labs, computer technology, projects, speakers,
- ◆ link CRP students with practicing professionals who are employed in fields that students are interested in pursuing,
- ◆ allow release time for a "coordinating period" for the CRP teacher coordinator,
- ◆ assign staff personnel from each participating district to coordinate articulation of CRP students from middle schools to feeder high schools to develop a continuum for CRP,
- ◆ expand parental training workshops to include career exploration and parenting skills in English and Spanish,

- ◆ improve the record keeping, budget planning, and simplify the budgeting procedures for middle school CRP coordinators,
- ◆ assign math and English CRP coordinators in each selected school site,
- ◆ assign the principal or his/her designee of each school site as the CRP coordinator,
- ◆ establish a tracking data base to follow-up CRP students from middle school/high school to college.

## **Item 2:**

The improvement of California's educational programs should include new and creative approaches to make a greater impact with fewer educational resources. One effective approach is intersegmental partnerships. Partnerships can represent a powerful force for educational improvement. Effective working relationships can be maintained among the segments, communication and coordination can be supported, and tasks and responsibilities can be divided in an equitable and appropriate manner. Programs such as the College Readiness Program, CAPP, Cal-Soap, and others, provide models of collaboration among post-secondary and K-12 educational systems, and are therefore important because of what they can reveal about the challenges and successes of partnerships as vehicles to leverage extant resources, and make a difference in the educational lives of students and schools across California.

Policies establishing university-school partnerships should be developed jointly between districts and university administrations, and should include provisions for rewarding faculty participation within the university. Often, it is difficult to encourage faculty involvement because these efforts are not built into the retention, promotion and tenure process on the campuses. More importantly, there is no career incentive to engage minority faculty who wish to become involved in partnership efforts with K-12. On the other hand, it is important that those faculty who are involved in efforts for education improvement should write, assess, and develop scholarly reports for dissemination within the segments.

Greater efforts should be taken to establish a tracking data base to follow-up all students engaged in educational improvement activities from middle/junior high school to college. And, there must be greater shared accountability for the implementation of intersegmental partnerships by all segments.

# *Appendix G*

## **EARLY ACADEMIC OUTREACH PROGRAM UNIVERSITY OF CALIFORNIA 1989-90**

### **INTRODUCTION**

The University of California's Early Academic Outreach Program (EAOP) guides young people toward participation and success in postsecondary education and makes available academic resources that substantially improve their chances of achieving that goal. The participants are students whose economic and social circumstances make such achievement, without the benefit of the program, unlikely.

One of the most important indicators of the program's success is the high rate at which participants graduating from high school achieve eligibility for the University of California -- 49.9% for 1989-90. According to the most recent California Postsecondary Education Commission Study, about 5% of underrepresented minority students achieve eligibility, while 14.1% of the population overall achieve eligibility. Students in the Early Academic Outreach Program, who are principally from underrepresented groups (ie. low-income and groups whose UC eligibility rates are substantially below 12.5%), also enroll in postsecondary education at a rate more than six times that of underrepresented students not in the program.

In the last fifteen years, the program's design has been refined in a variety of ways that have markedly strengthened its capacity to motivate and assist students. In many instances, it also has established itself as an integral part of the fabric of the schools in which it operates, such that its benefits extend far beyond the discrete group of students participating.

### **PROGRAM HISTORY**

The University of California's undergraduate Student Affirmative Action programs represent the University's commitment to assist in the motivation, academic preparation, enrollment, retention, and graduation of students from underrepresented groups. Currently, these groups are African Americans, American Indians, Chicanos, and Latinos.

In 1975, the University completed a study of educational opportunities for underrepresented students. It identified barriers to postsecondary education, suggested methods of increasing access, and recommended steps to support academic success among these students. The report showed that the primary barrier to access and retention was a low level of academic preparation, which resulted in low rates of eligibility for University admission.

With these findings as background, the University requested and received State funds to initiate a series of student affirmative action programs. The Early Outreach Program began in the spring of 1976, focusing on junior high school students. In 1978, the University initiated the second component of the Early Outreach Program which provided for the continuation of developmental activities through high school. These efforts have since been combined and called the Early Academic Outreach Program.

## **PROGRAM GOALS**

The primary goal of the Early Academic Outreach Program is to increase significantly the number of underrepresented students who are eligible for the University of California or the California State University. The program accomplishes its goal by identifying potential applicants at the junior high school level and assisting in their preparation for postsecondary education through motivational and informational, as well as academic support, activities.

## **SELECTION OF PROGRAM PARTICIPANTS**

The Early Academic Outreach Program serves students who are enrolled in grades seven through twelve. Generally, participants are accepted into the program while in junior high school, although some are admitted later if circumstances warrant. Minimum criteria for student selection include the following:

- A desire to participate in the Early Academic Outreach Program;
- Enrollment in the seventh or eighth grade;
- Member of an underrepresented group or low-income family;
- Potential to benefit from the services offered and to achieve eligibility for the University or other four-year institutions upon graduation from high school, the attainment of which is judged unlikely without program support; and
- Willingness to take the sequence of academic courses specified for eligibility to the University.

## **SERVICES PROVIDED**

**Service Categories.** Activities of the Early Academic Outreach Program at each of the University's eight undergraduate campuses differ somewhat according to local circumstances, such as needs of the schools, availability of resources, and distance of the school from the campus or satellite office. The campus programs share many practices, however, and these can be grouped into five categories.

1. **Identification** -- Entry services identify students with the motivation and potential for postsecondary education. Exit services link participants with outreach personnel at postsecondary institutions.
2. **Information Dissemination** -- Services that provide information regarding admission requirements, academic counseling, financial assistance, housing, filing deadlines, and other procedures which facilitate enrollment in postsecondary institutions.
3. **Motivation** -- Services that generate interest and enthusiasm about postsecondary education, such as campus tours, field trips, summer or weekend programs, parent meetings, and faculty/student meetings.
4. **Academic Development** -- Services that raise the educational aspirations and improve the academic preparation of students by assisting in their completion of a-f courses and strengthening their academic skills. These services include tutoring in mathematics and reading and developing skills in problem solving, critical thinking, report writing, test taking, and note taking.
5. **Administrative/Programmatic Linking** -- Activities linking program staff and management with school staff and management. These activities strengthen the overall program structure at each site; they establish clear, shared goals; they promote collaboration, mutual trust and respect, shared responsibility and accountability, and open communication among those involved. In addition, some programs serve as brokers to assist schools in taking advantage of other postsecondary resources, such as interaction with University faculty and involvement in courses.

**Sequence of Services.** The services provided by the Early Academic Outreach Program vary by the grade level of the participants, with each year's activities building upon the work done earlier. In the seventh and eighth grades, staff begin identification of potential participants and focus on developing aspirations for postsecondary education.

At each successive level of secondary school enrollment, the program focuses increasingly on academic skill building among participants. Tutorial services provide help in mastering course subject matter, while summer residential programs provide participants an opportunity to experience a University environment and foster a culture of academic excellence. In the twelfth grade, participants receive assistance with the application, enrollment, and financial aid processes. In addition, participants may receive a formal evaluation of their high school transcript to determine admissibility to any University of California campus, and individual counseling sessions with University admissions representatives.

## **SELECTION OF TARGETED SCHOOLS**

**Geographic Distribution.** Each of the eight undergraduate campuses administers an Early Academic Outreach Program which serves students in selected schools within its geographic service area. To reach those areas of the state distant from University of California campuses, two satellite offices have been established, one in Fresno directed by the Santa Cruz campus and the other in the Imperial Valley directed by the San Diego campus.

**Characteristics of Schools Served.** The schools selected for the Early Academic Outreach Program are those with a higher proportion of underrepresented ethnic and racial minority and low-income students enrolled than the average proportion statewide. The latest available statewide data show that, among California's public high school students in 1989, 37.5% were from underrepresented groups, and among California's public junior high school students 41.0% were from underrepresented groups. However, these students comprised 52.3% of the student population in the public junior and senior high schools which have formed partnerships with the Early Academic Outreach Program.

## **PROGRAM RESULTS**

**Legislative Goals.** Supplemental budget language in 1986-87 established five performance goals for the Early Academic Outreach Program. The specific objectives of the Early Academic Outreach Program, as specified by the California State legislature, are to have:

- a. At least 75% of the program participants from underrepresented ethnic groups;
- b. At least 55% of the program graduates attend four-year colleges;
- c. At least 35% of the program graduates are UC eligible;
- d. At least 70% of all students served by the program enrolled in at least four a-f courses per semester beginning in the 10th grade; and
- e. At least 50% of all students participating have cumulative GPAs of at least 2.5 in grades 7 through 9 and cumulative GPAs of at least 2.7 in grades 9 through 12.

Progress in meeting these goals, as well as other success indicators, are presented below. Data corresponding to specific goals are indicated by bold print.<sup>1</sup>

<sup>1</sup> See Appendix 5 for a review of data anomalies which arose during the 1989-90 data collection cycle.

**Schools and Students Served.** In 1989-90, the Early Academic Outreach Program served a total of 52,460 students in 543 schools. The current total includes 23,535 students served in 241 junior high schools, and 28,925 students served in 302 high schools. Of the total number of students served, 78.4% are from underrepresented ethnic groups (Goal=75%).

In its activities, the program is focused on individual contact with students. This, and resource constraints, limit the number of students who can be reached in each school to a relatively small percentage of total enrollment.

Display 1 shows the number of schools and students served by the Early Academic Outreach Program in 1989-90.

### Display 1

#### Number of Schools and Students Participating in the Early Academic Outreach Program 1989-90

	Junior High Schools	High Schools	TOTAL
NUMBER OF SCHOOLS	241	302	543
<hr/>			
<b>Students Served</b>			
African American	3,382	6,381	9,743
American Indian	644	969	1,613
Chicano	10,900	14,029	24,929
Latino	1,653	3,170	4,823
<b>SAA Subtotal</b>	<b>16,559</b>	<b>24,549</b>	<b>41,108</b>
Asian	1,210	1,542	2,752
Filipino	1,028	1,216	2,244
White	3,775	1,015	4,790
Other	963	603	1,566
<b>TOTAL</b>	<b>23,535</b>	<b>28,925</b>	<b>52,460</b>

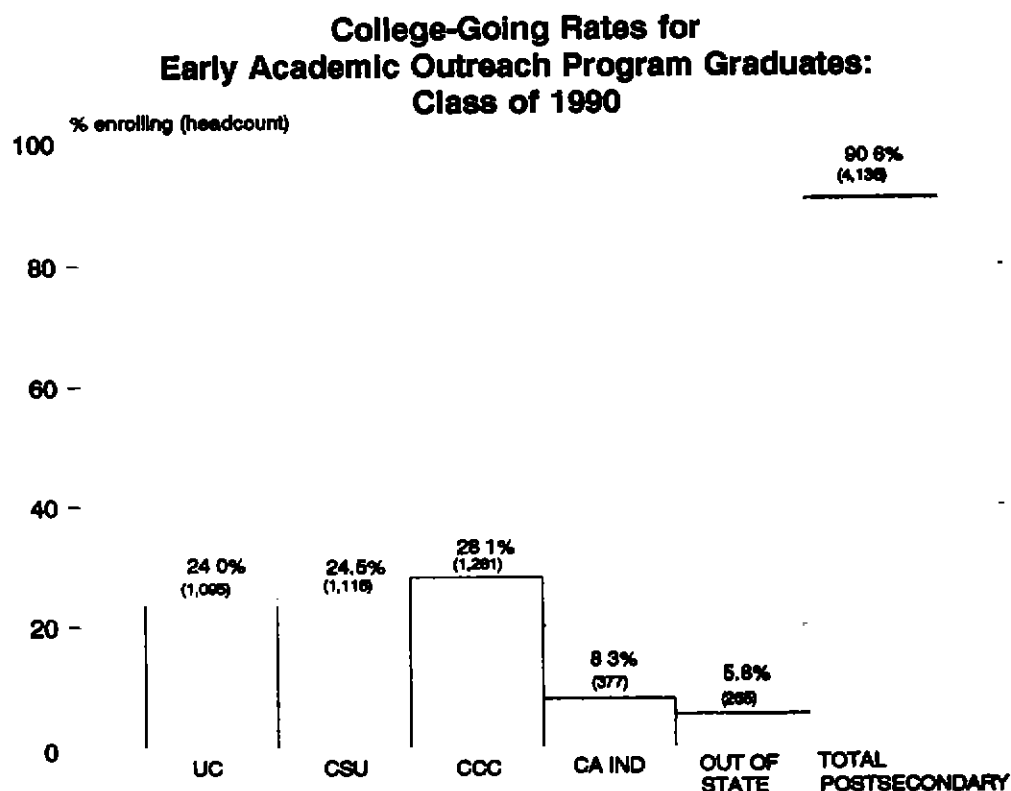
Source: UC Office of the President, Admissions & Outreach Services, July 1991.

**College-Going Rates of Participants.** In 1990, 90.6% (4,136) of Early Academic Outreach Program graduates enrolled in some postsecondary institution. Of the graduates for whom enrollment is known, 62.6% (2,855) enrolled in four-year institutions (Goal=55%), including 1,095 (24.0%) who enrolled at a campus of the University of California (Display 2). Among underrepresented minority groups, 67.8% of African American participants and 79.8% of Chicano/Latino participants enrolled in a public four-

year college in California. By contrast, the most recent CPEC data on students statewide show that in 1989, only 15.9% of African American public high school graduates and 14.1% of Chicanos/Latinos enrolled in the University of California or the California State University.

**Enrollment at Out-of-State Institutions.** Overall program graduate enrollment at out-of-state institutions represented 5.8%. Of Chicano/Latino graduates, 2.8% enrolled in institutions outside of California. American Indians had the next highest rate of out-of-state enrollment at 5.4%. African American students had the highest rate, with 16.0% of the graduates attending colleges in other states.

## Display 2



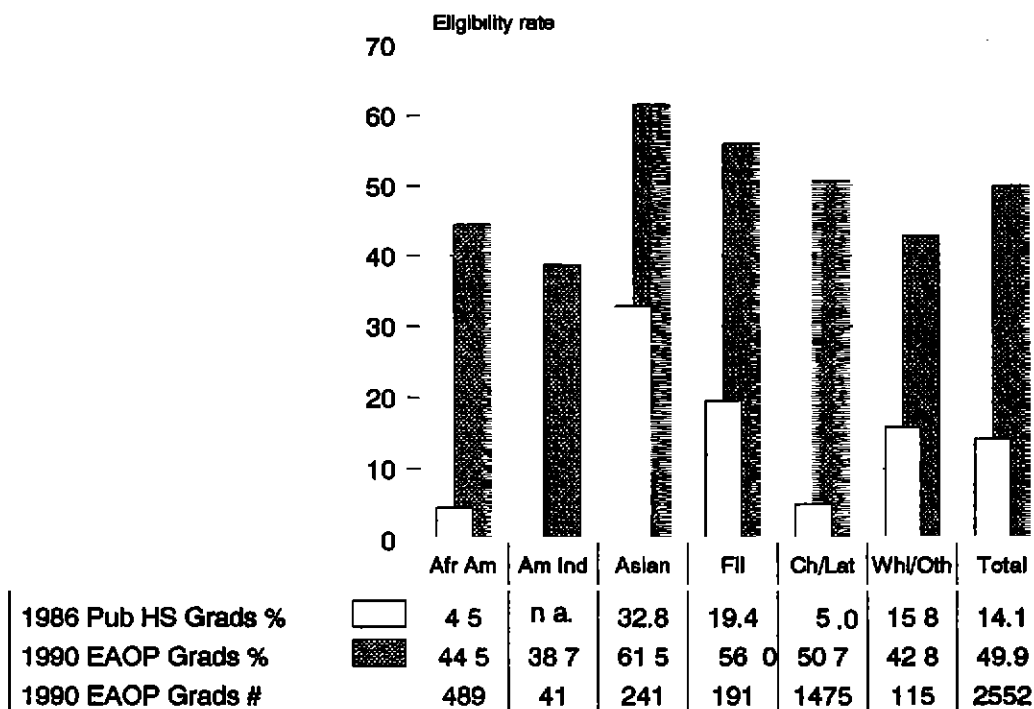
Source: UC Office of the President, Admissions & Outreach Services, July 1991

**Eligibility for University Admission.** The Early Academic Outreach Program has been extremely successful in assisting participants achieve eligibility for admission to the University. The California Postsecondary Education Commission (CPEC) has found 14.1% of all 1986 public high school graduates to be eligible for admission to the University of California. The same study found 4.5% of African Americans and 5.0% of Chicanos/Latinos to be eligible. By contrast, in 1990, 49.9% of Early Academic Outreach graduates were eligible for the University (Goal=35%). The 1990 eligibility rate for African American participants was 44.5% and for Chicanos/Latinos was 50.7%, both the highest rates ever recorded for these groups among program graduates. Within every

ethnic/racial category, Early Academic Outreach Program graduates surpass their respective statewide eligibility rates (Display 3). These outcomes exceed the results from prior years (Display 4), and show a steady pattern of success for the program in this area.

**Display 3**

**UC Eligibility Rates for 1986 Public High School Graduates  
and 1990 University of California Early Academic Outreach Program Graduates**



Source: UC Office of the President, Admissions & Outreach Services, July 1991.

**Display 4**

**UC Eligibility Rates for 1986 Public High School Graduates and  
UC Early Academic Outreach Program Graduates, 1986-90**

	California Public High School Graduates: 1986	Early Academic Outreach Program Graduates					
		1986	1987	1988	1989	1990	1990
		Percents					Number
African American	4.5	24.1	30.2	41.2	35.5	44.5	489
American Indian	n.a.	n.a.	n.a.	n.a.	33.3	38.7	41
Asian American	32.8	56.3	56.9	53.9	49.5	61.5	241
Chicano/Latino	5.0	25.1	32.0	38.6	39.1	50.7	1,475
Filipino	19.4	40.4	41.6	51.4	50.9	56.0	191
White	15.8	30.9	34.0	26.3	30.5	42.8	115
<b>TOTAL</b>	<b>14.1</b>	<b>27.7</b>	<b>34.0</b>	<b>40.8</b>	<b>39.2</b>	<b>49.9</b>	<b>2,552</b>

Source: UC Office of the President, Admissions & Outreach Services, July 1991.

**Course Completion Patterns.** The legislative objective has been slightly redefined. The language adopted by the Legislature requested that the University track the enrollment of participants in a-f courses. Since the determination of eligibility is based on the number of courses successfully completed, it is this information which is collected for all students, and reported for students after their fifth semester of high school. A survey of 3,345 juniors in 1990-91 indicates that 95.3% had completed five or more a-f courses. In addition, 78.7% had successfully completed 8 or more courses.

**Grade Point Average Patterns.** The survey of 3,345 juniors in 1990-91 showed that by the middle of their junior year, 58.5% had earned cumulative a-f GPA's of at least 2.7 (Goal=50%). In addition, 42.2% had GPA's of 3.0 or better and 25.1% had GPA's of 3.3 or better. Cumulative a-f GPA's are not typically calculated in grades 7 through 9.

Display 5 illustrates cumulative a-f GPA's for this sample of 1990-91 program participants.

#### **Display 5**

#### **1990-91 Cumulative a-f Grade Point Averages for EAOP High School Participants After the 5th Semester**

Cumulative GPA (9-10 grades)	Cumulative number of Juniors	Percent of Juniors at or above this GPA level
equal to/greater than 3.6	466	13.9
equal to/greater than 3.3	841	25.1
equal to/greater than 3.0	1,412	42.2
equal to/greater than 2.7	1,956	58.5
equal to/greater than 2.4	2,494	74.6
less than 2.4	848	25.4

Source: UC Office of the President, Admissions & Outreach Services, July 1991.

### **SUPPLEMENTAL PROGRAM RESULTS**

The Third Progress Report on the Effectiveness of Intersegmental Student Preparation Programs is to contain information related to the effectiveness of particular program components on student achievement. To this end, a series of three surveys were designed and administered to EAOP participants. The bulk of this report is based on the results of a June 1991 mail survey administered to 1991 program graduates. Approximately 4,000 surveys were sent to graduating EAOP seniors in an effort to meet a desired sample size. A low response rate offered us 284 completed surveys.

Information from two other surveys contribute supplemental information in this report. Each is a survey hand-distributed to 1990 summer program participants. One involves an evaluation of EAOP services (783 students in grades 8 through 12), and the other is an assessment of the summer program itself (985 students in grades 7 through 12).

In the narrative which follows, results for the three surveys are reported in accordance with the following legend which assigns a letter to each of the three surveys. The letter assignment corresponds to the chronological order of their administration.

Survey A	--	Survey on Academic Year Services	(N=758)
Survey B	--	Survey on Summer Program Services	(N=996)
Survey C	--	Survey of 1990-91 Seniors	(N=285)

### **Characteristics of Survey Respondents**

The total number of respondents for the three surveys was 2,039. Males represented 36.9% and females represented 63.1% of the respondents. These proportions differ for the EAOP overall, where males represent 42.2% and females 57.8%.

African American respondents accounted for 29.8%, American Indians 1.5% and Chicanos 44.2%, Latinos 7.2%. Low-income students from other backgrounds accounted for 17.3%.

The number and proportion of respondents by grade level is as follows:

<u>Grade Level</u>	<u>Number</u>	<u>Percent</u>
8	124	6.1
9	258	12.7
10	602	29.5
11	379	18.6
12	676	33.1

A large proportion of respondents will be first generation college students if they continue their education after high school. A substantial portion have parents who are not college educated. Among the mothers, 80.2% did not have 4-year college degrees; while among the fathers, the percentage was 84.2%.

Many of the respondents were long-term EAOP participants. Of the respondents to Survey C, the survey of seniors, 40% had participated in the program since the ninth grade. More than half (60%) received services during their junior and senior years, and 81% of these students had participated during their sophomore year.

Appendix 1 presents the demographic characteristics of respondents for the three surveys in more detail.

## **General Impact of Program Participation<sup>2</sup>**

Survey C asked students to rate the degree to which obtaining a college degree was important before EAOP participation and now. Seventy-one percent of the respondents indicated that when they joined the program obtaining a college degree was "very" or "extremely" important. By the end of their program involvement, 96% (an increase of 35%) stated that obtaining a college degree was "very" or "extremely" important. Similarly, 47% of Survey C respondents indicated that without EAOP services they may not have planned high school coursework so that they could be academically prepared for college. Additionally, 23% indicated that without EAOP services they may not have earned the grades necessary to go to college.

Surveys A and C both asked students to identify the extent to which EAOP has helped them prepare specifically for UC admission. A majority of the students (A=68%; C=67%) said it was "very helpful." Further, there were additional students who felt that EAOP was "somewhat helpful" (A=27%; C=27%).

Survey A also asked students to describe their knowledge and feelings about college on a number of additional measures SINCE they began their participation in EAOP. The results of this survey, whose respondents were in grades 8-12, are as follows:

- o Eighty percent now understand the A-F requirements;
- o Seventy percent feel confident that they can achieve their objectives to become eligible for UC admission;
- o Sixty percent are committed to devoting serious time and energy to their studies;
- o Fifty-two percent are better prepared to do well in school; and,
- o Forty-eight percent now plan to attend a UC campus.

## **Impact of General Program Participation on Specific Academic Interests**

Surveys A and C asked students how participation has impacted upon their interest in a number of specific areas. Those areas in which a substantial portion of students (more than 50%) indicated an increase in interest on both surveys were:

<sup>2</sup> It should be noted that there is evidence of a response bias in the results of Survey C. It appears that, as a group, Survey C respondents are academically stronger than EAOP seniors as a whole. Over 80% reported a-f GPA's of 'B' (3.0) or above. Of those respondents who knew their UC eligibility status, 85% were eligible. This compares with 49.9%; the actual rate for 1990 graduates derived through the extensive post-graduation telephone follow-up study. A comparison of 4-year enrollment rates (97.1% vs. 62.6%) offers more evidence to support this conclusion.

	Percentage of Students Indicating Increase
Interest in writing and doing projects	(A-76%; C-50%)
Concern about future career choice	(A-73%; C-74%)
Interest in getting good grades	(A-75%; C-59%)
Interest in taking advanced english classes	(A-68%, C-not asked)

Other items which were reported to have increased among 50% or more of respondents for either Survey A or C were:

	Percentage of Students Indicating Increase
Interest in doing their best in school	(C-68%)
Interest in taking advanced science classes	(A-66%)
Interest in getting a degree at UC	(C-64%)
Interest in getting a 4-year degree	(C-64%)

Of the Survey C respondents who indicated increased interest in a four-year college degree, 48% stated that their increased interest was substantial ("Increased A Lot"). Appendix 2 presents more detail on the impact of participation on student interests for Surveys A and C, respectively.

**Summer Programs.** Survey B focused on the Summer Program experience as a single component of program services. The results indicate that this particular component increases: 1) the likelihood of attending college (84% stated that they are "much more likely" to go to college); and 2) their motivation to excel academically (72% stated that they are "much more motivated to excel academically.") Of those summer program students who lived in a UC campus dormitory (66%), many had positive experiences which would encourage future postsecondary enrollment.

### **Impact of General Program Participation on Specific Grades and Academic Skills**

An early indicator of UC eligibility is progress in satisfactorily completing a-f course requirements. EAOP students receive counseling services aimed at keeping them "on track" for a-f course completion. Eighty percent of the Survey A respondents indicated they were "on track."

Surveys A and C asked students how participation in EAOP has impacted their grades and abilities in a number of areas. Those areas in which a substantial portion of students (more than 50%) indicated an increase on both surveys were:

	Percentage of Students Indicating Increase
Knowledge of college choices and requirements	(A-73%; C-86%)
Grades in English	(A-76%; C-53%)
Writing Skills	(A-75%; C-52%)

Other areas in which at least 50% of the respondents indicated an increase on one of the surveys were:

	Percentage of Students Indicating Increase
Grades in Science	(A-68%)
Grades in Math	(A-66%)
Organizational Skills	(C-56%)
Ability to Use Study Time Effectively	(C-50%)
Study Skills	(C-50%)

Appendix 3 presents more detail on the impact of participation on student grades and academic skills for Surveys A and C.

### **Impact of Specific Program Components**

Surveys A and C listed specific program components and asked participants to indicate their respective helpfulness. Results indicate that participants depend on the program to keep them "on track" toward UC eligibility. They value the monitoring of their academic preparation and progress in fulfilling requirements for attaining their postsecondary educational goals. The three most helpful program activities reported by students are: College advisement (A-90%; C-98%); Summer programs (A-90%; C-95%); and Contact with UC personnel who serve as role models (A-83%; C-96%).

These activities have three things in common:

1. They familiarize students with the college environment.
2. They clarify what is required of the student.
3. They articulate what the University can offer academically, culturally, and in relation to future career options.

Two components received the highest rating among 50% or more of the students: Summer Programs (A-75%; C-51%) and College Advisement (A-66%; C-50%). Two additional components on Survey A were given the highest rating among 50% or more of the respondents; they were Educational Events/Activities (55%) (not asked on Survey C), and Working with UC Students (54%).

Appendix 4 shows student ratings for the "degree of helpfulness" for various program activities listed in Surveys A and C.

### **Postsecondary Educational Plans**

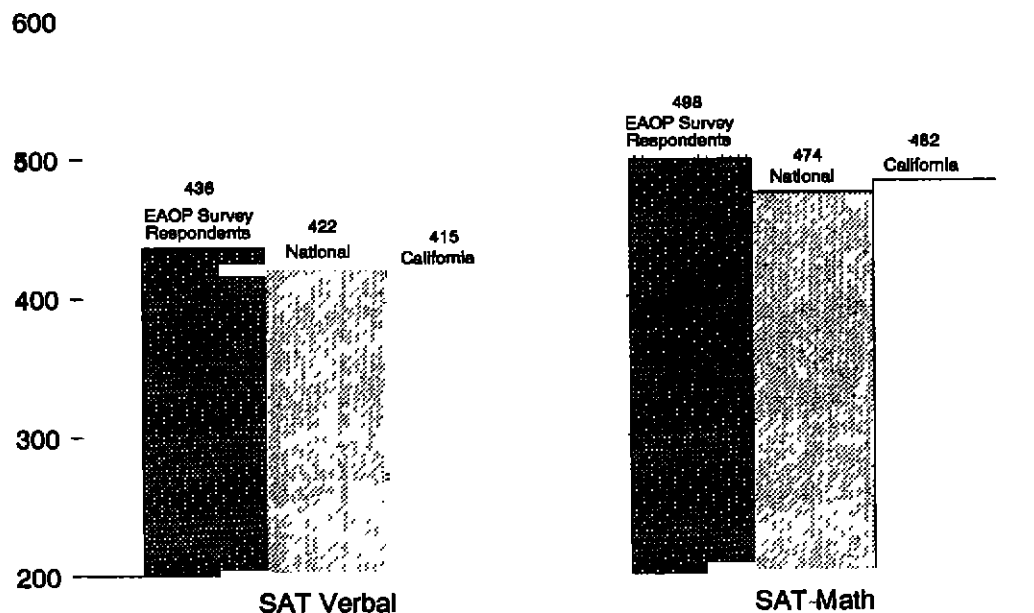
Only the survey of seniors, Survey C, directly asked students to indicate their plans after high school. Sixteen percent indicated that they would "work full-time" and 8% indicated "other plans." An overwhelming majority (76%) of respondents plan to attend a college

on a full-time basis immediately after graduation from high school. Of this group, many (41%) plan to attend a UC campus, 24% plan to attend a CSU campus, and 16% plan to attend a California Community College. Assuming that students planning to attend a private institution in California (7.6%) and planning to attend out-of-state institutions (8.3%), are attending 4-year institutions, then the participation rate to 4-year institutions is 81%. By adding those students planning to attend a California Community College (16.2%) the overall postsecondary enrollment rate is 97.1%

Taking college entrance examinations is also an excellent indicator of a student's intent to enroll in a four-year college. Almost all (91%) of the Survey C respondents had taken either the SAT or the ACT. Sixty two percent of those taking the SAT or ACT also had taken an achievement test. Test score averages for these students were above state and national means (see Display 6). Seventy-nine percent had SAT Verbal scores of 500 or above. Fifty-six percent scored 500 or above on the SAT Math. Sixty-seven percent had an SAT total of 1000 or greater. The majority of students taking the ACT (69%) performed at a level concordant with SAT scores at or above 900. A small number of respondents took the Math Level I and Level II Achievement Tests. Of these students, approximately 50% performed well, scoring at or above 500.

**Display 6**

**1991 College Bound Seniors  
Mean SAT Verbal and Math Scores**



Source: UC Office of the President, Admissions & Outreach Services, September 1991.

## **Highest Degree Intended**

Survey C asked, "What is the highest degree you eventually plan to earn?" Respondents indicated high aspirations, with 49% stating an intent to earn either a professional or doctoral degree. Another 24% plan to earn a masters degree; 8% plan to acquire a teaching credential; 19% indicated a four-year degree; and 3% plan to receive a two-year degree. Less than 1% plan to complete their education with high school graduation.

## **Written Student Comments**

Survey C asked students to provide their views on the reasons that some students do well in school and others do average or below-average work. The presence or absence of family support was most frequently cited, identified by 40% of the respondents. Personal qualities including positive self-esteem and motivation was cited by 31% of the respondents. These views were presented consistently for students who were UC eligible, not eligible, and those who were unaware of their eligibility status.

## **Conclusion**

The results of these surveys confirm that motivational and developmental program activities provided by the Early Academic Outreach Program help students shape their academic goals and future plans. Intensive academic assistance contributes to higher grades and greater postsecondary enrollment opportunities. Clearly, EAOP services increase awareness of college opportunities, instill greater motivation to achieve academically, and enhance the academic ability of participants to pursue postsecondary educational opportunities.

## **FUTURE DIRECTION**

The most significant fact being considered by EAOP directors is the dramatic and far reaching changes which are taking place in the size and ethnic makeup of California's K-12 population; changes which will have a dramatic effect on future demand for the University among public high school graduates. In fifteen years, by 2006, the number of public high school graduates is projected to grow by 86% to 423,675 graduates, with the principal growth occurring among the non-white population. From 1991 to 2006 white graduates will increase by 27%, but the rate of growth among non-white groups will be much higher. The percentage increases among the groups range from 46% for African Americans to 188% among Chicanos/Latinos.

Two challenges are clear. First, the University must maintain its efforts, in partnership with the schools, to raise the eligibility rates of the SAA groups, which are currently far below the 12.5% rate called for by the Master Plan. Second, the University must work to increase the rate at which students from these groups participate in postsecondary education. If 95% of African American and Chicano/Latino graduates continue to be ineligible for admission to the University, the principal barrier to access will remain unchanged, and will negatively affect many more young Californians.

During the 1991-92 year, the University will be planning strategies which can impact schools in broader ways. It will pursue a higher degree of cooperation and collaboration between Early Academic Outreach, UC Subject Matter Projects, and other University programs focused on school improvement. Joining forces with leadership at schools where Early Academic Outreach now operates, and based on specific school needs, these University programs will work in concert towards systematic reform of individual schools and districts. Such a configuration represents the next logical step in the evolution of these programs, given growth and demographic changes now expected.

To meet the challenge of the 1990's and beyond, it is intended that the University will expand and coordinate its school improvement and SAA efforts collectively to improve student outcomes more broadly and engage institutions more deeply.

# APPENDIX 1

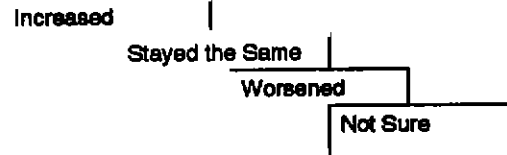
## Characteristics of Survey Respondents (in percentages)

	SURVEY A General EAOP Evaluation by 1990 Summer Program Participants	SURVEY B Summer Program Evaluation by 1990 Summer Program Participants	SURVEY C General EAOP Evaluation by 1991 Program Graduates
<b>GRADE LEVEL</b>			
8	6.2	7.7	N/A
9	11.7	17.0	N/A
10	38.1	31.4	N/A
11	21.0	22.1	N/A
12	23.0	21.8	100.0
<b>ETHNICITY</b>			
African American/Black	28.7	31.5	26.6
American Indian/Alaskan Native	1.5	1.5	2.1
Asian/Asian-American	4.4	6.0	6.7
Filipino/Filipino-American	2.5	3.4	5.3
Latino/Other Spanish-American	6.8	7.7	6.4
Mexican/Mexican-American/Chicano	47.5	41.8	44.0
White/Caucasian	2.4	2.5	4.6
Other	6.3	5.6	4.3
<b>GENDER</b>			
Female	62.9	60.2	74.5
Male	37.1	39.8	25.5
<b>PARENT EDUCATIONAL LEVEL</b>			
<b>Mother</b>			
Not a high school graduate	30.0	25.7	32.7
High school graduate	20.4	19.9	28.1
Some college	28.4	28.4	22.1
4-year college degree	12.2	14.0	8.9
Graduate or professional	9.1	11.9	8.2
<b>Father</b>			
Not a high school graduate	28.4	24.6	30.9
High school graduate	19.7	18.7	22.2
Some college	25.9	23.2	26.9
4-year college degree	14.7	18.6	9.1
Graduate or professional	11.3	14.9	10.9

## APPENDIX 2

### Impact of EAOP Participation on Academic Interests

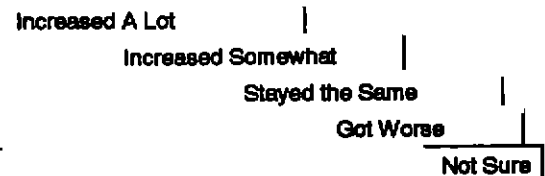
#### Survey A



	Increased	Stayed the Same	Worsened	Not Sure
My interest in writing and doing projects	76%	22%	1%	1%
My interest in getting good grades	75%	22%	0%	2%
My concern about my future career choice	73%	25%	1%	1%
My interest in taking advanced english classes	68%	31%	1%	1%
My interest in taking advanced science classes	66%	28%	2%	5%
My interest in getting a college degree at the University of California	44%	54%	2%	1%
My interest in doing my homework	41%	52%	2%	5%
My interest in striving to do my best in school	27%	64%	3%	6%

Source: UC Office of the President, Admissions and Outreach Services.  
Survey of 1990-91 EAOP participants - 758 respondents September 1991

#### Survey C



	Total Increased	A + B	A	B	Stayed the Same	Got Worse	Not Sure
My concern about my future career choice	74.0%	43%	31%	23%	1%	3%	
My interest in striving to do my best in school	67.9%	35%	33%	31%	0%	1%	
My interest in getting a four-year college degree	63.6%	48%	15%	35%	0%	1%	
My desire to take college preparatory courses	62.4%	40%	22%	36%	0%	2%	
My interest in getting good grades	58.9%	24%	35%	39%	0%	2%	
My interest in writing	50.0%	25%	25%	48%	1%	2%	
My interest in doing my homework	47.3%	17%	30%	51%	0%	1%	
My interest in enrolling in honors or AP classes	46.9%	27%	20%	47%	0%	5%	
My interest in taking math courses	43.1%	16%	27%	53%	3%	1%	
My interest in taking science classes	36.6%	11%	26%	58%	3%	3%	
My interest in taking advanced science classes	28.3%	11%	17%	61%	4%	8%	

Source: UC Office of the President, Admissions and Outreach Services  
Survey of 1990-91 EAOP Seniors - 285 respondents. September 1991

# APPENDIX 3

## Impact of EAOP Participation on Grades and Academic Skills

### Survey A

Increased | Stayed the Same | Worsened | Not Sure

	Increased	Stayed the Same	Worsened	Not Sure
My grades in English	76%	22%	1%	1%
My writing skills	75%	22%	0%	2%
My knowledge of college choices and requirements	73%	25%	1%	1%
My grades in Science	68%	31%	1%	1%
My grades in math	68%	28%	2%	5%
My ability to understand abstract concepts and problem-solving	44%	54%	2%	1%
My study skills (test-taking, note-taking, etc.)	41%	52%	2%	5%
My organizational skills (meetings deadlines, keeping calendars, etc.)	36%	56%	2%	6%
My ability to use my study time effectively	27%	64%	3%	6%

Source UC Office of the President, Admissions and Outreach Services.  
Survey of 1990-91 EAOP participants - 758 respondents. September 1991.

### Survey C

Increased A Lot | Increased Somewhat | Stayed the Same | Got Worse | Not Sure

	Total Increased	A Lot	Somewhat	Stayed the Same	Got Worse	Not Sure
My knowledge of college choices and requirements	86.3%	57%	30%	12%	1%	1%
My organizational skills (meetings deadlines, keeping calendars, etc.)	55.7%	26%	29%	41%	2%	2%
My grades in English	53.3%	21%	32%	44%	2%	1%
My writing skills	52.2%	22%	30%	46%	0%	1%
My ability to use my study time effectively	50.4%	17%	33%	44%	3%	3%
My study skills (test-taking, note-taking, etc.)	49.7%	16%	32%	47%	1%	2%
My ability to understand abstract concepts and problem-solving	38.9%	11%	26%	57%	1%	5%
My grades in math	38.3%	15%	21%	55%	6%	3%
My grades in Science	34.8%	12%	23%	61%	3%	2%

Source UC Office of the President, Admissions and Outreach Services.  
Survey of 1990-91 EAOP Seniors - 285 respondents. September 1991

# APPENDIX 4

## Impact of Program Components

### Survey A

		Very Helpful	Somewhat Helpful	Not Very Helpful	Not at all Helpful	Activity Not Offered
	Total Helpful	A	B	C	D	
Summer Programs	90.4%	75.2%	15.2%	3.0%	0.7%	5.9%
Academic Assistance	90.0%	66.2%	23.8%	2.6%	0.4%	7.0%
Recognition Awards/Banquet Ceremonies	84.0%	54.8%	29.1%	3.3%	0.8%	11.8%
Working with UC Students	82.8%	47.0%	35.8%	4.3%	2.4%	10.5%
PSAT/SAT Preparation	80.1%	48.6%	31.4%	3.8%	1.3%	14.9%
Meetings with EAOP Staff	75.6%	54.2%	21.4%	1.7%	0.9%	21.8%
Parents Events	68.3%	32.6%	35.6%	8.0%	2.2%	21.5%
Tour of Campus	66.0%	42.7%	23.2%	4.5%	1.1%	28.5%
College Advisement	65.5%	48.6%	16.9%	2.9%	1.2%	30.4%
Educational Events/Activities	55.7%	27.5%	28.2%	5.2%	1.3%	37.8%
EAOP Newsletters and Publications	51.4%	28.5%	22.9%	5.4%	1.4%	41.8%
Career Presentations	44.0%	27.9%	16.1%	3.2%	0.8%	52.0%
Saturday Programs	41.5%	15.9%	25.6%	10.5%	5.0%	43.0%

Source UC Office of the President, Admissions and Outreach Services  
Survey of 1990-91 EAOP participants - 758 respondents. September 1991

### Survey C

		Extremely Helpful	Very Helpful	Moderate Help	Some Help	No Help
	Total Helpful	A	B	C	D	
College Advisement	98.4%	49.8%	31.6%	10.1%	6.9%	1.6%
Tour of Campus	97.9%	21.9%	41.3%	23.6%	11.2%	2.0%
Meetings with UC Faculty	95.7%	30.9%	38.7%	21.6%	6.5%	4.3%
Career Presentations	95.5%	19.4%	42.6%	24.6%	9.0%	4.5%
Summer Programs	94.7%	51.3%	27.8%	10.4%	5.2%	5.2%
Working with UC Students/Counselors or Tutors	92.7%	38.7%	39.5%	9.7%	4.6%	7.3%
Academic Assistance	91.3%	31.9%	36.3%	12.1%	11.0%	8.8%
EAOP Newsletters and Publications	91.1%	19.7%	29.3%	30.6%	11.5%	8.9%
Recognition Awards/Banquet Ceremonies	90.3%	18.3%	30.5%	25.6%	15.9%	9.8%
Saturday Programs	86.3%	28.8%	33.3%	13.6%	10.6%	13.6%
Parents Events	82.9%	15.9%	29.5%	27.3%	10.2%	17.0%

Source UC Office of the President, Admissions and Outreach Services.  
Survey of 1990-91 EAOP Seniors - 285 respondents. September 1991

## **APPENDIX 5**

In comparing program results between 1988-89 and 1989-90 an issue emerged which impacted upon the base data of schools and students served, and decreased the ability to compare data across the two years. This issue, which should be considered parenthetical background information, is described below. The Office of the President has discussed this issue with administrators at the Santa Cruz campus, and believes this will impact no future reporting year.

A comparison between 1988-89 and 1989-90 of the number of UCSC EAOP graduates for whom eligibility information is known shows a reduction of 311 seniors. The same comparison of the number of UCSC graduates for whom enrollment information is known shows a reduction of 278 seniors. A vacancy in the data analyst position at the Santa Cruz campus resulted in the completion of data collection for approximately one-half of its graduating seniors.

This problem makes difficult comparisons of data for 1988-89 and 1989-90. Thus, the information presented in the report primarily refers to the 1989-90 year.

# Appendix H



## **Background**

The MESA (Mathematics, Engineering, Science Achievement) pre-college program operates within an organized intersegmental structure with a variety of components that are intended to 1) promote academic excellence, 2) augment and improve existing resources and services, 3) help link appropriate agencies with school district programs, and 4) establish and maintain rigorous evaluation mechanisms. An effective MESA pre-college program involves a primary partnership between a MESA center and a school district that results in a commitment of human and financial resources, a dedication to academic success for MESA's target students, and a diligent effort by all partners toward the realization of these aims.

In general, a MESA pre-college program center is located on a university campus and housed within a school of science or engineering. Every MESA center is headed by a center director who is responsible for delivering a range of support services to students and their advisors at selected elementary, junior, and senior high schools. MESA advisors are usually mathematics and science teachers.

The principal components of a successful pre-college program involve a series of structured activities intended to promote the realization of academic success. These components include organized group study such as mathematics and science workshops, academic advising, summer enrichment activities and Saturday academies, scholarship incentive awards, family involvement and support, and career exploration and field trips to industry or university sites.

During the course of implementation of the program, MESA provides a number of site-appropriate intervention strategies designed to have a positive and measurable impact on school sites in general, and to MESA students in particular. Because of the geographic scope of the program (MESA currently serves 59 school districts throughout California), each MESA center is permitted to tailor its program to address the specific needs of the school district and community that it serves.

## **Introduction**

In the 1990-91 academic year MESA's pre-college program served 9,878 students, a 27% increase over the prior year. Student enrollment at MESA's eighteen pre-college centers ranged from 100 to 2,200 each for the same period.

In April 1991, the MESA Statewide office conducted a survey of its pre-college students to measure, analyze, and describe the relationships between the frequency of student participation in specific program activities and the achievements of those having received at least one year of program service and support. In order to measure the relative strength between variables—in this case, student participation levels and their perception of the helpfulness of the activities, and participation level and their course grades—correlation coefficients were used. Theoretically, a correlation coefficient ranges from -1.0 to +1.0 with a numeric value of 0.5 or more indicating a statistically significant association between the two measures.

From a possible total of 4,080 students who had received one year or more of MESA's services, a random sample of ten percent—or 408 records—was selected from the statewide enrollment database. Of the 408 questionnaires mailed, 241 responses were returned, a response rate of fifty-nine percent (59%). All pre-college grade levels (elementary, junior high/middle school, and senior high school) were represented in the sample.

A four-part student questionnaire formed the basis for the 1990-91 survey. The first and second sections of the questionnaire queried students about the frequency of their participation in MESA activities, and to what degree these activities helped them succeed academically respectively. The third section inquired about any changes the

students perceived in their behavior and attitude towards such things as school work and college aspirations. The fourth and final section asked for a personal profile that included questions on gender, ethnicity, academic coursework and grades, school attended, levels of education within their family, what the students liked best and least about MESA, and what other services MESA could offer them that would help them better succeed.

#### **Program Activities and Their Relationships to Student Performance**

Although the survey's primary purpose is to quantify program impact on students, the information contained in the following section on individual program activities ultimately provides the organization with a viable means to examine itself and improve existing services.

#### **1. MESA Meetings**

Among student respondents MESA meetings were highly attended and were perceived to be helpful in succeeding academically. Ninety-four percent (94%) of the respondents attended MESA meetings with almost one-half (48%) participating about once a week. Ninety-one percent (91%) found the activity either very helpful or somewhat helpful. There were apparent positive correlations between student participation in MESA meetings and the grades they received in algebra, geometry, physics, and 11th and 12th grade English courses.

#### **2. MESA Period/Class**

Forty-eight percent (48%) of the respondents attended a MESA period or class. Approximately one-half (52%) perceived MESA periods as very helpful, thirty-six percent (36%) found them as somewhat helpful. A significant positive correlation was found between this activity and advanced algebra, geometry, physics, and chemistry. However, the results also indicated a negative correlation with trigonometry/math analysis.

#### **3. College Advisement**

Approximately eighty-five percent (85%) of the respondents reported receiving college advisement; about one-quarter (26%) received advice about once a week or more than once a week, and another one-quarter (25%) about once a month. More than one-half (56%) found the service very helpful, another thirty-nine percent (39%) found it somewhat helpful. With the exception of 9th-grade English which showed no correlation, a consistent positive correlation was indicated with all other grade-levels of English. Further positive correlations were suggested with pre-algebra, geometry, advanced algebra, biology, and chemistry courses; calculus and physics, however, showed negative correlations.

#### **4. School Course Counseling**

About seventy-six percent (76%) of the respondents reported receiving school course counseling. Almost one-half (48%) perceived the counseling as very helpful; another forty percent (40%) found it somewhat helpful. A weak negative correlation was indicated with several lower-division courses (8th-grade English, algebra, and biology) while a consistent positive correlation emerged with most upper-division courses (geometry, advanced algebra, trig/math analysis, 10th, 11th, and 12th-grade English). This consistent pattern of improvement in course grades from the lower to the upper divisions seems to indicate that over time as the student receives counseling, the students' grades improve.

#### **5. Academic Assistance**

A total of about seventy-four percent (74%) of the respondents reported receiving MESA academic assistance in the form of tutoring and study groups with forty-two percent (42%) receiving assistance about once or more than once a week. More than one-half (57%) found this activity very helpful, another fourteen percent (14%) found it somewhat helpful. Although the service is perceived as very helpful, a consistent pattern of weak negative correlations emerged between frequency of participation and the grades received. One possible explanation is that the students who were performing poorly in class recognized that they needed assistance and attended academic assistance. These students were most satisfied with the service they received. To accurately gauge the effectiveness

of academic assistance, an analysis of pre- and post-testing or control groups to compensate the self-selection that occurs is required.

#### **6. MESA Science Workshop**

More than one-half (54%) of the respondents attended a MESA science workshop. Over one-quarter (28%) found the science workshops very helpful; almost one-half (49%) found them somewhat helpful. A consistent positive correlation was found with English, calculus, and physics. Other courses such as algebra, geometry, advanced algebra, trigonometry, biology, and chemistry had weak, negative correlations with science workshop participation.

#### **7. MESA Math Workshop**

More than one-half (54%) of the respondents reported attending a MESA math workshop. Forty-two percent (42%) found the math workshops very helpful, another forty-four percent (44%) found them somewhat helpful. With the exception of chemistry and physics, the math workshop participation showed a consistent negative correlation to other courses.

#### **8. PSAT/SAT Workshops and Preparation**

Precisely one-half (50%) of the respondents reported attending a PSAT/SAT workshop or preparation session with one-half (50%) indicating the workshops were very helpful, and another forty percent (40%) as somewhat helpful. None (0%) of the respondents indicated the activity was not helpful or harmful. A positive correlation was drawn between the activity and pre-algebra and 12th grade English; a weak positive correlation was shown between the workshops and both algebra and geometry.

#### **9. Career Presentations (Speakers, Films)**

Eighty-eight percent (88%) of the respondents reported attending at least one career presentation, and more than half (59%) attended more than two. Fifty-nine percent (59%) found the presentations very helpful; another thirty-four percent (34%) reported the activity as somewhat helpful. A consistent positive correlation was indicated with all levels pre-algebra, algebra, geometry, advanced algebra, biology, and English.

#### **10. MESA Summer Program**

Forty-three percent (43%) of the respondents reported attending a MESA-sponsored summer program. Sixty-five percent (65%) found them very helpful, and almost one-quarter (24%) perceived them as somewhat helpful. None (0%) reported finding the summer program either not helpful or harmful. A consistently strong positive correlation was indicated between frequency of participation in the summer program and student grades. In contrast with academic assistance where the students self-select in attending tutoring and study groups, there is a defined selection process for summer programs where limited spaces are reserved for the better-performing students. Gaining acceptance into a MESA summer program is a highly selective and competitive process. Most often, the better-performing, highly-motivated students are selected to participate. In turn, these high-achieving students tend to find the rigorous and challenging summer curriculum both stimulating and rewarding.

#### **11. Recognition Awards (Incentives, Scholarships)**

Sixty-five percent (65%) of the respondents reported receiving recognition awards. More than half (57%) found the awards to be very helpful, thirty-one percent (31%) indicated they were somewhat helpful. A consistent positive correlation was found between the awards and student grades. Students who typically receive these awards tend to be better-performing and more highly motivated than their peers. At the same time, these students help provide a challenge and set an example for other students to emulate and achieve.

#### **12. Field Trips (National Labs, Industry Sites, and Campus Visits)**

Almost ninety percent (87%) of the respondents had participated in a MESA field trip; well over half (58%) had participated in more than two. Seventy percent (70%) found the trips very helpful and one-quarter (27%) found



them somewhat helpful. A consistent negative correlation with course performance was indicated.

### **13. Junior High/Senior High MESA Exchanges**

Less than one-half (35%) of the respondents reported attending a MESA exchange. More than one-quarter (28%) found the exchanges to be very helpful, more than half (52%) found them to be somewhat helpful. With the exception of pre-algebra and calculus, a consistent negative correlation was indicated between the exchanges and student grades.

### **14. MESA Day/Pre-MESA Day Events**

More than three-quarters (78%) of the respondents reported attending a MESA Day or Pre-MESA Day event, and almost one-half (47%) had participated in an event at least twice. More than one-half (55%) found the activity very helpful, thirty-seven percent (37%) perceived it as somewhat helpful. With the exception of advanced algebra, calculus and 12th grade English a consistent positive correlation was indicated for all courses at every grade level.

### **15. Other Math/Science Competitions or Projects**

Sixty-four percent (64%) of the respondents reported participating in other math/science competitions or projects at least once. Eighty-five percent (85%) found the competitions either very helpful or somewhat helpful. A strong positive correlation was indicated between these competitions and pre-algebra, a consistent positive correlation also emerged with algebra, geometry, advanced algebra, biology, chemistry, and physics. With the exception of 12th grade English, positive correlations were indicated with English studies in all other grades.

### **16. Student Leadership Events/Activities**

Sixty-three percent (63%) of the respondents reported attending student leadership events and activities, and more than one-third (37%) attended these events at least twice. Over one-half (54%) perceived the events as very helpful; another thirty-five percent (35%) found them somewhat helpful. A strong positive correlation was indicated with pre-algebra, algebra, geometry, and biology.

### **17. Summer Jobs**

More than one-quarter (29%) of the respondents reported having a MESA-sanctioned summer job. Well over one-half (57%) perceived summer employment as very helpful, slightly less than one-quarter (24%) found the activity somewhat helpful.

### **18. Parent Events (Parent Night, Math/Science Night)**

More than one-half (53%) of the respondents attended at least one parent event. Over three-quarters (79%) found parent events either somewhat helpful or very helpful. Except for calculus, a consistent positive correlation was indicated with all mathematics courses, a strong positive correlation also emerged for both physics and chemistry. Tenth, 11th-, and 12th-grade English, however, showed a weak negative correlation with the activity.

### **Changes in Student Behavior and Perspective After Joining MESA**

A majority of student respondents (67%) reported both a keener understanding of why mathematics was important and an increased interest in taking advanced math courses (61%). About one-half (49%) reported that their math grades remained unchanged, a smaller proportion (43%) perceived an improvement in math grades.

Similarly, the students reported an increase in their understanding of why science was important (57%) and expressed increased interest in taking advanced science classes (57%). Again, a smaller proportion (44%) of those sampled perceived an improvement in their science grades as opposed to those whose science grades remained the same (50%).

A majority of the students (57%) reported that their English grades had remained the same; slightly over one-third (37%) reported improved grades.

One very positive outcome of the survey was the feedback regarding student attitudes about college and careers. More than three-quarters (78%) of the students expressed increased interest in continuing their education, and an equally strong majority (72%) expressed increased concern about career choice. Students' knowledge of college choices and entrance requirements also showed significant improvement (80%).

Slightly less than half (48%) the students reported an improvement in their study skills and academic performance such as note-taking and test-taking; also slightly less than half (48%) reported enhanced organizational skills such as meeting deadlines and maintaining schedules. A substantial portion (73%) of the students reported a heightened interest in getting very good grades; almost all (96%) expressed the same or greater levels of interest in doing their homework.

### **Personal Profile**

More than one-half (53%) of the 241 respondents were male; forty-seven percent (47%) were female. Sixty-one percent (61%) were Mexican American, thirty-two percent (32%) African American, two and one-half percent (2.5%) American Indian; four-tenths of one percent (0.4%) Puerto Rican, the remaining four and one-half percent (4.5%) were other ethnicities or were unreported. Almost three-quarters (71%) of the respondents were in 10th-, 11th-, or 12th-grades; the remainder were in grades 5 through 9. Almost ninety percent (89%) reported between one and three years of MESA involvement, less than half (43%) had participated for just one year, and a little over one-quarter (26%) had been involved for two years.

Although most of the respondents' parents or guardians did not have high levels of formal education, a small but significant proportion of the fathers (17%) and mothers (16%) had received either a four-year college or advanced degree. Approximately one-half of both parents (49% of the fathers and 52% of the mothers) had either attended or had graduated from high school. Thirty percent (30%) of the mothers and twenty-seven percent (27%) of the fathers had not graduated from high school.

The open responses revealed some interesting feedback from the students. Over three-quarters (78%) expressed opinions regarding what they liked best about MESA. Some of the written responses included comments about the value of learning more about various fields or careers; more opportunities to learn about colleges and college life, a better understanding of how an individual's life and career progresses based upon visits from guest speakers; the value of interacting with guest speakers and attending leadership events, and the positive effects that encouragement provides.

Almost forty percent (39%) of the respondents provided feedback about what they liked least about MESA; twenty-one percent (21%) provided suggestions about other kinds of services that could be useful if provided. Many students commented that not enough students were involved in the program, and that MESA should do more to increase the number of students interested in pursuing engineering and other math-based careers. Some students felt that MESA should provide more summer jobs. This is a common request among MESA students for some type of income-generating activity. Yet others expressed a desire for more math and science competitions because the activity was less structured, less serious, and more fun.

### **Conclusion**

More often than not, MESA students are from homes where parents or guardians have little formal education. When a MESA student succeeds in attending college, he or she frequently is the first in the immediate family to do so. Despite the lack of academic achievement-by-example at home however, MESA students well understand the necessity and importance of taking advanced, college-track courses, maintaining effective organization and study skills, doing their homework, and the need to pursue academic excellence. MESA students also know about the rigors of college entrance requirements and exams, are learning to anticipate the demands of postsecondary study, and know that study assistance is available when and if they need it.

A particularly good example of MESA students' perseverance can be found in their performance in upper-division courses. Advanced studies in English, mathematics, and science are especially challenging for most students, and MESA students are no exception. Average grades for MESA students in these courses range from B-minus to B-plus — relatively strong grades given the context. It is both significant as well as encouraging to note that although student grades do not necessarily improve with participation in the program, MESA students continue to consciously accept the personal and academic challenges inherent in upper-division coursework. The composite student profile which emerges from the 1990-91 pre-college survey therefore, is that of a student who is not sprinting and out ahead of the pack, but rather is keeping stride in the face of increasingly weighty academic challenges.

Clearly, the results of the survey indicate that as a student participates in MESA a perceptual shift occurs. By taking part in the various program activities, a student's commitment to persevere and achieve emerges. With the academic enrichment that the MESA program provides, a student begins to recognize that he or she has a bright professional future, and can lay claim to it through study and hard work.

## RESULTS

Response Rate 59 %

Number of  
Respondents  
241

Percentages

Number of Responding Students

I This year, how frequently did you participate in or have contact with the following MESA-sponsored activities?  
(Circle one response for each item, please).

<b>1. MESA Meetings</b>	<b>240</b>	
a. more than once a week .....		14.17
b. about once a week .....		47.50
c. about every two weeks .....		16.25
d. about once a month .....		7.50
e. less than once a month .....		9.17
f. never .....		5.42
<b>2. MESA Period/Class</b>	<b>226</b>	
a. more than once a week .....		19.03
b. about once a week .....		17.26
c. about every two weeks .....		3.54
d. about once a month .....		4.42
e. less than once a month .....		4.42
f. never .....		51.33
<b>3. College advisement</b>	<b>238</b>	
a. more than once a week .....		6.30
b. about once a week .....		19.75
c. about every two weeks .....		15.13
d. about once a month .....		25.21
e. less than once a month .....		18.91
f. never .....		14.71
<b>4. School course counseling</b>	<b>233</b>	
a. more than once a week .....		6.87
b. about once a week .....		15.45
c. about every two weeks .....		9.87
d. about once a month .....		22.32
e. less than once a month .....		22.32
f. never .....		23.18
<b>5. Academic assistance (tutoring, study groups, etc.)</b>	<b>239</b>	
a. more than once a week .....		25.52
b. about once a week .....		16.74
c. about every two weeks .....		8.79
d. about once a month .....		7.11
e. less than once a month .....		15.90
f. never .....		25.94
<b>6. MESA science workshop</b>	<b>241</b>	
a. more than once a week .....		1.66
b. about once a week .....		9.54
c. about every two weeks .....		4.15
d. about once a month .....		14.94
e. less than once a month .....		24.07
f. never .....		45.64



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	Number of Respondents	Percentages
<b>7. MESA math workshop</b>	<b>240</b>	
a. more than once a week .....		5.83
b. about once a week .....		7.50
c. about every two weeks .....		4.58
d. about once a month .....		14.58
e. less than once a month .....		21.67
f. never .....		45.83
<b>8. PSAT/SAT workshops, preparations</b>	<b>239</b>	
a. more than once a week .....		1.26
b. about once a week .....		6.72
c. about every two weeks .....		2.94
d. about once a month .....		15.13
e. less than once a month .....		24.79
f. never .....		49.16
<b>9. Career presentations (speakers, films, etc.)</b>	<b>241</b>	
a. more than twice .....		58.51
b. twice .....		18.26
c. once .....		11.62
d. never .....		11.62
<b>10. MESA summer program</b>	<b>240</b>	
a. more than twice .....		10.42
b. twice .....		10.00
c. once .....		22.92
d. never .....		56.67
<b>11. Recognition awards (incentives, scholarships, etc.)</b>	<b>239</b>	
a. more than twice .....		30.13
b. twice .....		10.46
c. once .....		25.10
d. never .....		34.31
<b>12. Field trips (national labs, industry sites, campus visits, etc.)</b>	<b>238</b>	
a. more than twice .....		57.99
b. twice .....		15.97
c. once .....		13.03
d. never .....		13.03
<b>13. Junior High/Senior High MESA exchanges</b>	<b>237</b>	
a. more than twice .....		8.44
b. twice .....		8.86
c. once .....		18.57
d. never .....		64.14
<b>14. MESA Day/Pre-MESA Day</b>	<b>240</b>	
a. more than twice .....		30.42
b. twice .....		16.67
c. once .....		30.83
d. never .....		22.08

	Number of Respondents	Percentages
<b>15. Other math/science competitions or projects</b>	<b>241</b>	
a. more than twice .....		26.56
b. twice .....		12.45
c. once .....		24.90
d. never .....		36.10
<b>16. Student leadership events/activities</b>	<b>239</b>	
a. more than twice .....		26.36
b. twice .....		10.46
c. once .....		26.36
d. never .....		36.82
<b>17. Summer job</b>	<b>239</b>	
a. more than twice .....		8.79
b. twice .....		4.18
c. once .....		16.32
d. never .....		70.71
<b>18. Parent events (Parent Night, Math/Science Night, etc.)</b>	<b>239</b>	
a. more than twice .....		17.99
b. twice .....		10.04
c. once .....		24.67
d. never .....		47.28
<b>II Have the following MESA-sponsored activities <u>helped</u> you to succeed in school? (Circle one response for each item, please).</b>		
<b>1. MESA meetings</b>	<b>231</b>	
a. very helpful .....		46.75
b. somewhat helpful .....		44.59
c. not helpful .....		2.60
d. harmful .....		0.43
e. not sure .....		5.63
<b>2. MESA Period/Class</b>	<b>108</b>	
a. very helpful .....		51.85
b. somewhat helpful .....		36.11
c. not helpful .....		1.85
d. harmful .....		0.00
e. not sure .....		10.19
<b>3. College advisement</b>	<b>205</b>	
a. very helpful .....		55.61
b. somewhat helpful .....		38.54
c. not helpful .....		0.49
d. harmful .....		0.00
e. not sure .....		5.37

	Number of Respondents	Percentages
<b>4. School course counseling</b>	<b>183</b>	
a. very helpful . . . . .		48.09
b. somewhat helpful . . . . .		40.44
c. not helpful . . . . .		0.55
d. harmful . . . . .		0.55
e. not sure . . . . .		10.38
<b>5. Academic assistance (tutoring, study groups, etc.)</b>	<b>174</b>	
a. very helpful . . . . .		56.90
b. somewhat helpful . . . . .		34.48
c. not helpful . . . . .		0.57
d. harmful . . . . .		1.15
e. not sure . . . . .		6.32
<b>6. MESA science workshop</b>	<b>130</b>	
a. very helpful . . . . .		28.46
b. somewhat helpful . . . . .		49.23
c. not helpful . . . . .		1.54
d. harmful . . . . .		0.00
e. not sure . . . . .		20.77
<b>7. MESA math workshops</b>	<b>137</b>	
a. very helpful . . . . .		41.61
b. somewhat helpful . . . . .		43.80
c. not helpful . . . . .		0.73
d. harmful . . . . .		0.00
e. not sure . . . . .		13.87
<b>8. PSAT/SAT workshops, preparations</b>	<b>126</b>	
a. very helpful . . . . .		50.00
b. somewhat helpful . . . . .		39.68
c. not helpful . . . . .		0.00
d. harmful . . . . .		0.00
e. not sure . . . . .		10.32
<b>9. Career presentations (speakers, films, etc.)</b>	<b>219</b>	
a. very helpful . . . . .		53.36
b. somewhat helpful . . . . .		34.25
c. not helpful . . . . .		1.83
d. harmful . . . . .		0.00
e. not sure . . . . .		4.57
<b>10. MESA summer program</b>	<b>97</b>	
a. very helpful . . . . .		64.95
b. somewhat helpful . . . . .		23.71
c. not helpful . . . . .		0.00
d. harmful . . . . .		0.00
e. not sure . . . . .		11.34

	Number of Respondents	Percentages
<b>11. Recognition awards (incentives, scholarships, etc.)</b>	<b>167</b>	
a. very helpful .....		56.89
b. somewhat helpful .....		30.54
c. not helpful .....		0.60
d. harmful .....		0.00
e. not sure .....		11.98
<b>12. Field trips (national labs, industry sites, campus visits, etc.)</b>	<b>210</b>	
a. very helpful .....		70.48
b. somewhat helpful .....		26.67
c. not helpful .....		0.95
d. harmful .....		0.00
e. not sure .....		1.90
<b>13. Junior High /Senior High MESA exchanges</b>	<b>82</b>	
a. very helpful .....		28.05
b. somewhat helpful .....		52.44
c. not helpful .....		0.00
d. harmful .....		0.00
e. not sure .....		19.51
<b>14. MESA Day/Pre-MESA Day</b>	<b>188</b>	
a. very helpful .....		54.79
b. somewhat helpful .....		37.23
c. not helpful .....		1.60
d. harmful .....		0.00
e. not sure .....		6.38
<b>15. Other math/science competitions or projects</b>	<b>157</b>	
a. very helpful .....		43.31
b. somewhat helpful .....		42.04
c. not helpful .....		1.27
d. harmful .....		0.00
e. not sure .....		13.38
<b>16. Student leadership events/activities</b>	<b>155</b>	
a. very helpful .....		53.55
b. somewhat helpful .....		34.84
c. not helpful .....		0.00
d. harmful .....		0.00
e. not sure .....		11.61
<b>17. Summer job</b>	<b>155</b>	
a. very helpful .....		57.14
b. somewhat helpful .....		24.29
c. not helpful .....		4.29
d. harmful .....		1.43
e. not sure .....		12.86

	Number of Respondents	Percentages
<b>18. Parent events (Parent Night, Math/Science Night, etc.)</b>	<b>127</b>	
a. very helpful . . . . .		37.01
b. somewhat helpful . . . . .		41.73
c. not helpful . . . . .		5.51
d. harmful . . . . .		0.00
e. not sure . . . . .		15.75

III For each item below, please indicate whether or not MESA has made a difference to you.

**After joining MESA:**

<b>1. My grades in math</b>	<b>241</b>	
a. improved . . . . .		43.15
b. stayed the same . . . . .		49.38
c. got worse . . . . .		2.49
d. not sure . . . . .		4.98
<b>2. My interest in taking advanced math classes</b>	<b>240</b>	
a. increased . . . . .		60.83
b. stayed the same . . . . .		34.17
c. decreased . . . . .		2.50
d. not sure . . . . .		2.50
<b>3. My interest in taking advanced science classes</b>	<b>241</b>	
a. increased . . . . .		56.85
b. stayed the same . . . . .		37.76
c. decreased . . . . .		2.49
d. not sure . . . . .		2.90
<b>4. My concern about my career choice</b>	<b>241</b>	
a. increased . . . . .		72.16
b. stayed the same . . . . .		22.40
c. decreased . . . . .		0.00
d. not sure . . . . .		4.98
<b>5. My interest in continuing my education</b>	<b>240</b>	
a. increased . . . . .		77.92
b. stayed the same . . . . .		20.42
c. decreased . . . . .		0.00
d. not sure . . . . .		1.67
<b>6. My understanding of why math is important</b>	<b>240</b>	
a. increased . . . . .		66.67
b. stayed the same . . . . .		30.42
c. decreased . . . . .		0.42
d. not sure . . . . .		2.50
<b>7. My grades in science</b>	<b>240</b>	
a. increased . . . . .		43.75
b. stayed the same . . . . .		50.42
c. decreased . . . . .		2.50
d. not sure . . . . .		3.33

	Number of Respondents	Percentages
<b>8. My understanding of why science is important</b>	<b>239</b>	
a. increased . . . . .		57.32
b. stayed the same . . . . .		37.24
c. decreased . . . . .		1.26
d. not sure . . . . .		4.18
<b>9. My knowledge of college choices and requirements</b>	<b>239</b>	
a. increased . . . . .		79.92
b. stayed the same . . . . .		17.57
c. decreased . . . . .		0.00
d. not sure . . . . .		2.51
<b>10. My interest in getting very good grades</b>	<b>240</b>	
a. increased . . . . .		73.33
b. stayed the same . . . . .		24.17
c. decreased . . . . .		0.00
d. not sure . . . . .		2.50
<b>11. My interest in doing my homework</b>	<b>240</b>	
a. increased . . . . .		48.33
b. stayed the same . . . . .		48.33
c. decreased . . . . .		0.83
d. not sure . . . . .		2.50
<b>12. My grades in English</b>	<b>240</b>	
a. improved . . . . .		37.08
b. stayed the same . . . . .		57.08
c. got worse . . . . .		3.75
d. not sure . . . . .		2.08
<b>13. My study skills (note-taking, test-taking, etc.)</b>	<b>240</b>	
a. improved . . . . .		47.92
b. stayed the same . . . . .		48.33
c. got worse . . . . .		1.25
d. not sure . . . . .		2.50
<b>14. My organizational skills (meeting deadlines, keeping calendars, etc.)</b>	<b>241</b>	
a. improved . . . . .		48.13
b. stayed the same . . . . .		46.06
c. got worse . . . . .		1.66
d. not sure . . . . .		4.15
<b>IV. Personal information</b>		
<b>1. What is your gender?</b>	<b>241</b>	
a. male . . . . .		53.11
b. female . . . . .		46.88
<b>2. What is your ethnicity?</b>	<b>241</b>	
a. American Indian . . . . .		2.49
b. African American . . . . .		31.54
c. Mexican American . . . . .		61.00
d. Puerto Rican . . . . .		0.41
e. Other . . . . .		4.56



	Number of Respondents	Percentages
<b>3. What grade are you in now?</b>	<b>241</b>	
5th grade . . . . .		0.83
6th grade . . . . .		1.24
7th grade . . . . .		2.49
8th grade . . . . .		14.11
9th grade . . . . .		9.96
10th grade . . . . .		13.28
11th grade . . . . .		29.46
12th grade . . . . .		28.63
<b>4. What school do you go to?</b>	open-ended response - not coded	
<b>5. When did you first join MESA?</b>	<b>223</b>	
1985-86 . . . . .		1.35
1986-87 . . . . .		7.62
1987-88 . . . . .		15.70
1988-89 . . . . .		26.46
1989-90 . . . . .		42.60
1990-91 . . . . .		6.28
<b>6. What is the highest level of education reached by each of your parents (or guardians)?</b>		
<b>Father</b>	<b>226</b>	
a. Not a high school graduate . . . . .		26.55
b. High school graduate . . . . .		22.57
c. Some college . . . . .		22.57
d. four-year college degree . . . . .		8.41
e. Advanced degree . . . . .		8.85
f. Not sure/Don't know . . . . .		11.06
<b>Mother</b>	<b>226</b>	
a. Not a high school graduate . . . . .		30.09
b. High school graduate . . . . .		21.68
c. Some college . . . . .		27.00
d. four-year college degree . . . . .		11.06
e. Advanced degree . . . . .		4.87
f. Not sure/Don't know . . . . .		5.31

Number of  
Respondents

Carnegie Score

7a. What grades have you received in all of the following subjects?

(Leave the space blank if you have not taken the course yet).

7b. Also, circle the names of the courses you are currently taking.

**Fall Semester**

Math Course

Pre-Algebra . . . . .	130	3.18
Algebra . . . . .	180	3.00
Geometry . . . . .	155	2.95
Advanced Algebra . . . . .	126	2.88
Trigonometry/math analysis . . . . .	75	2.85
Calculus . . . . .	30	2.73

Science Course

Biology . . . . .	177	3.03
Chemistry . . . . .	118	2.88
Physics . . . . .	67	2.85

College-Bound English

8th grade . . . . .	139	3.31
9th grade . . . . .	162	3.21
10th grade . . . . .	148	3.19
11th grade . . . . .	122	3.11
12th grade . . . . .	59	2.97

**Spring Semester**

Math Course

Pre-Algebra . . . . .	123	3.24
Algebra . . . . .	177	3.03
Geometry . . . . .	147	2.99
Advanced Algebra . . . . .	88	3.05
Trigonometry/math analysis . . . . .	42	2.86
Calculus . . . . .	14	2.79

Science Course

Biology . . . . .	157	3.24
Chemistry . . . . .	77	2.97
Physics . . . . .	33	2.94

College-Bound English

8th grade . . . . .	139	3.37
9th grade . . . . .	153	3.24
10th grade . . . . .	130	3.14
11th grade . . . . .	74	3.14
12th grade . . . . .	19	3.05



	Number of Respondents	Percentages
8. What do you like <u>best</u> about MESA? open-ended response - not coded	195	78.31
9. What do you like <u>least</u> about MESA? open-ended response - not coded	96	39.83
10. Are there any MESA services that are <u>not</u> offered currently that would help students to succeed in school? If so, please describe. open-ended response - not coded	50	20.75

Correlation coefficients of each MESA Activity and its Perceived Degree of Helpfulness ranked in descending order of strength of the coefficients.

MESA Activity	Correlation coefficient, r
1 MESA Period/Class	+0.76
2. Junior High/Senior High MESA exchanges	+0.60
2. MESA math workshop	+0.60
4 PSAT/SAT workshops, preparations	+0.58
4. Summer job	+0.58
6. MESA science workshop	+0.55
7 MESA summer program	+0.54
8 Academic assistance (tutoring, study groups, etc.)	+0.53
9. Student leadership events/activities	+0.47
9. Recognition awards (incentives, scholarships, etc.)	+0.47
11. Other math/science competitions or projects	+0.44
12 Parent events (Parent Night, Math/Science Night, etc.)	+0.42
12. School course counseling	+0.42
14. College advisement	+0.38
14. Career presentations (speakers, films, etc.)	+0.38
16. MESA Meetings	+0.37
16 Field trips (national labs, industry sites, campus visits, etc.)	+0.37
18. MESA Day/Pre-MESA Day	+0.34



**Correlation coefficients of participation in each MESA Activity and the grades of each course.**

**Correlation coefficient, r**

**1. MESA Meetings**

a Pre-Algebra	+0.06
b Algebra	+0.18
c Geometry	+0.15
d. Advanced Algebra	+0.07
e Trigonometry/Math Analysis	-0.09
f Calculus	+0.12
g. Biology	-0.02
h. Chemistry	+0.07
i. Physics	+0.20
j. English - 8th grade	+0.09
k. English - 9th grade	+0.10
l. English - 10th grade	-0.01
m. English - 11th grade	+0.16
n. English - 12th grade	+0.26

**2. MESA Period/Class**

a. Pre-Algebra	+0.10
b. Algebra	+0.05
c. Geometry	+0.44
d. Advanced Algebra	+0.48
e. Trigonometry/Math Analysis	-0.37
f. Calculus	+0.13
g. Biology	-0.09
h. Chemistry	+0.24
i. Physics	+0.31
j. English - 8th grade	+0.32
k. English - 9th grade	+0.10
l. English - 10th grade	-0.10
m. English - 11th grade	+0.17
n. English - 12th grade	-0.04

**3. College Advisement**

a. Pre-Algebra	+0.17
b. Algebra	-0.06
c. Geometry	+0.28
d. Advanced Algebra	+0.10
e. Trigonometry/Math Analysis	-0.01
f. Calculus	-0.40
g. Biology	+0.20
h. Chemistry	+0.12
i. Physics	-0.15
j. English - 8th grade	+0.29
k. English - 9th grade	-0.01
l. English - 10th grade	+0.25
m. English - 11th grade	+0.14
n. English - 12th grade	+0.16

Correlation coefficients of participation in each MESA Activity and the grades of each course.

Correlation coefficient,  $r$

#### 4. School Course Counseling

a. Pre-Algebra	+0.01
b. Algebra	-0.17
c. Geometry	+0.14
d. Advanced Algebra	+0.11
e. Trigonometry/Math Analysis	+0.13
f. Calculus	+0.05
g. Biology	-0.09
h. Chemistry	+0.08
i. Physics	+0.07
j. English - 8th grade	-0.03
k. English - 9th grade	+0.02
l. English - 10th grade	+0.11
m. English - 11th grade	+0.13
n. English - 12th grade	+0.13

#### 5. Academic Assistance (tutoring, study groups, etc.)

a. Pre-Algebra	-0.14
b. Algebra	-0.03
c. Geometry	-0.14
d. Advanced Algebra	+0.03
e. Trigonometry/Math Analysis	-0.21
f. Calculus	-0.11
g. Biology	-0.10
h. Chemistry	-0.20
i. Physics	-0.08
j. English - 8th grade	-0.03
k. English - 9th grade	-0.05
l. English - 10th grade	-0.01
m. English - 11th grade	+0.13
n. English - 12th grade	+0.14

#### 6. MESA Science Workshop

a. Pre-Algebra	+0.01
b. Algebra	-0.09
c. Geometry	-0.11
d. Advanced Algebra	-0.05
e. Trigonometry/Math Analysis	-0.16
f. Calculus	+0.05
g. Biology	-0.08
h. Chemistry	-0.04
i. Physics	+0.18
j. English - 8th grade	+0.01
k. English - 9th grade	0.00
l. English - 10th grade	+0.19
m. English - 11th grade	+0.07
n. English - 12th grade	+0.30



Correlation coefficients of participation in each MESA Activity and the grades of each course.

Correlation coefficient, r

**7. MESA Math Workshop**

a. Pre-Algebra	-0.15
b. Algebra	-0.25
c. Geometry	-0.12
d. Advanced Algebra	-0.17
e. Trigonometry/Math Analysis	-0.07
f. Calculus	-0.30
g. Biology	-0.15
h. Chemistry	+0.04
i. Physics	+0.15
j. English - 8th grade	-0.04
k. English - 9th grade	-0.14
l. English - 10th grade	-0.13
m. English - 11th grade	-0.06
n. English - 12th grade	-0.05

**8. PSAT/SAT workshops, preparations**

a. Pre-Algebra	+0.13
b. Algebra	+0.06
c. Geometry	+0.05
d. Advanced Algebra	-0.46
e. Trigonometry/Math Analysis	-0.14
f. Calculus	-0.42
g. Biology	-0.01
h. Chemistry	+0.15
i. Physics	-0.39
j. English - 8th grade	+0.03
k. English - 9th grade	-0.08
l. English - 10th grade	+0.02
m. English - 11th grade	+0.01
n. English - 12th grade	+0.26

**9. Career Presentations (speakers, films, etc.)**

a. Pre-Algebra	+0.08
b. Algebra	+0.04
c. Geometry	+0.13
d. Advanced Algebra	+0.06
e. Trigonometry/Math Analysis	-0.07
f. Calculus	-0.15
g. Biology	+0.25
h. Chemistry	-0.22
i. Physics	-0.54
j. English - 8th grade	+0.11
k. English - 9th grade	+0.24
l. English - 10th grade	+0.26
m. English - 11th grade	+0.09
n. English - 12th grade	+0.02



Correlation coefficients of participation in each MESA Activity and the grades of each course.

Correlation coefficient, r

#### 10. MESA Summer Program

a. Pre-Algebra	+0.32
b. Algebra	0.00
c. Geometry	+0.24
d. Advanced Algebra	+0.38
e. Trigonometry/Math Analysis	+0.38
f. Calculus	+0.52
g. Biology	+0.13
h. Chemistry	+0.20
i. Physics	+0.22
j. English - 8th grade	+0.36
k. English - 9th grade	+0.30
l. English - 10th grade	+0.02
m. English - 11th grade	-0.24
n. English - 12th grade	+0.15

#### 11. Recognition Awards

a. Pre-Algebra	+0.23
b. Algebra	+0.25
c. Geometry	+0.26
d. Advanced Algebra	+0.34
e. Trigonometry/Math Analysis	+0.13
f. Calculus	+0.37
g. Biology	+0.55
h. Chemistry	+0.22
i. Physics	+0.12
j. English - 8th grade	+0.31
k. English - 9th grade	+0.43
l. English - 10th grade	+0.28
m. English - 11th grade	+0.20
n. English - 12th grade	-0.08

#### 12. Field Trips (national labs, industry sites, campus visits, etc.)

a. Pre-Algebra	-0.05
b. Algebra	-0.04
c. Geometry	+0.04
d. Advanced Algebra	-0.16
e. Trigonometry/Math Analysis	-0.17
f. Calculus	-0.92
g. Biology	-0.20
h. Chemistry	-0.09
i. Physics	-0.46
j. English - 8th grade	-0.20
k. English - 9th grade	-0.13
l. English - 10th grade	-0.06
m. English - 11th grade	-0.38
n. English - 12th grade	-0.07



**Correlation coefficients of participation in each MESA Activity and the grades of each course.**

**Correlation coefficient, r**

**13. Junior High/Senior High MESA Exchanges**

a. Pre-Algebra	+0.18
b. Algebra	-0.19
c. Geometry	-0.12
d. Advanced Algebra	-0.33
e. Trigonometry/Math Analysis	-0.13
f. Calculus	+0.44
g. Biology	-0.17
h. Chemistry	-0.03
i. Physics	-0.44
j. English - 8th grade	-0.09
k. English - 9th grade	-0.28
l. English - 10th grade	-0.14
m. English - 11th grade	-0.21
n. English - 12th grade	-0.54

**14. MESA Day/Pre-MESA Day**

a. Pre-Algebra	+0.39
b. Algebra	+0.06
c. Geometry	+0.24
d. Advanced Algebra	-0.12
e. Trigonometry/Math Analysis	+0.18
f. Calculus	-0.14
g. Biology	+0.29
h. Chemistry	+0.02
i. Physics	+0.16
j. English - 8th grade	+0.10
k. English - 9th grade	+0.05
l. English - 10th grade	+0.06
m. English - 11th grade	+0.02
n. English - 12th grade	-0.14

**15. Other Math/Science Competitions/Projects**

a. Pre-Algebra	+0.43
b. Algebra	+0.15
c. Geometry	+0.25
d. Advanced Algebra	+0.12
e. Trigonometry/Math Analysis	-0.11
f. Calculus	-0.37
g. Biology	+0.33
h. Chemistry	+0.26
i. Physics	+0.08
j. English - 8th grade	+0.09
k. English - 9th grade	+0.01
l. English - 10th grade	+0.13
m. English - 11th grade	+0.37
n. English - 12th grade	-0.16



**Correlation coefficients of participation in each MESA Activity and the grades of each course.**

**Correlation coefficient, r**

**16. Student leadership events / activities**

a. Pre-Algebra	+0.30
b. Algebra	+0.37
c. Geometry	+0.30
d. Advanced Algebra	+0.06
e. Trigonometry/Math Analysis	-0.36
f. Calculus	+0.12
g. Biology	+0.51
h. Chemistry	+0.05
i. Physics	+0.06
j. English - 8th grade	+0.21
k. English - 9th grade	+0.13
l. English - 10th grade	+0.07
m. English - 11th grade	+0.10
n. English - 12th grade	-0.42

**17. Summer Job**

a. Pre-Algebra	-0.37
b. Algebra	+0.10
c. Geometry	+0.05
d. Advanced Algebra	-0.18
e. Trigonometry/Math Analysis	-0.42
f. Calculus	+0.48
g. Biology	-0.16
h. Chemistry	-0.30
i. Physics	-0.45
j. English - 8th grade	-0.14
k. English - 9th grade	+0.17
l. English - 10th grade	+0.17
m. English - 11th grade	-0.45
n. English - 12th grade	-0.05

**18. Parent Events (Parent Night, Math/Science, etc.)**

a. Pre-Algebra	+0.14
b. Algebra	+0.29
c. Geometry	+0.19
d. Advanced Algebra	+0.11
e. Trigonometry/Math Analysis	+0.74
f. Calculus	-0.20
g. Biology	0.00
h. Chemistry	+0.29
i. Physics	+0.43
j. English - 8th grade	-0.07
k. English - 9th grade	+0.09
l. English - 10th grade	-0.14
m. English - 11th grade	-0.02
n. English - 12th grade	-0.09

### Five-year Funding History

MESA, to accomplish its mission, receives its financial resources from various sources. The largest portion of its operating budget is derived from state funds which passes via the University of California. The remainder of the budget is obtained from fundraising from private corporations and foundations. The state legislature requires MESA is to raise from the private sector an amount that matches or exceeds at least one-half of the state allocation.

In 1985, MESA received \$1,391,000 from the state and served 6,905 pre-college and college-level students. In 1990, \$2,246,877 was allocated by the state and 7,782 pre-college and 3,524 college-level students were served by the MESA Secondary Program (MSP) and MESA Engineering Program (MEP) respectively. During that five-year period, the state allocation grew by 61.5% while the number of students MESA served grew by 63.7%. In the meantime, the amount raised from corporations and foundations rose 67.7% from \$742,317 to \$1,244,798. This amount represents only the cash donated and does not include the in-kind contributions from corporations such as equipment, sponsorship of events and loaned executives. Also, this figure does not include all the fundraising done by the individual MSP and MEP centers.

It is difficult to determine the fair market value of the in-kind contributions from industry. While the value of equipment donations such as computer hardware from Apple, Hewlett-Packard and IBM and scientific calculators from Hewlett-Packard can be accurately estimated, the compensation packages of loaned executives from IBM, Pacific Bell, PG&E and ARCO who commonly spend at least one year with MESA are not disclosed by the companies. Company executives also volunteer their time for statewide activities such as MESA Day and sit on the MESA Board of Directors, the Industry Advisory Board or local boards and engage in local activities such as Parent Events, Motivational Speeches, MESA-at-Work and Shadow Day.

One of the biggest industry-sponsored events is the Advisors Conference. For the past three years, PG&E hosted about 400 MSP advisors and MESA staff at their San Ramon Training Facility for three days each year. They provide conference rooms, board and lodging. The treatment that is dispensed to the conference participants is par excellence and the A fair estimate of the in-kind contributions is between 100% and 200% of the cash donations.

The state allocation is used to pay, among other items, the salary and benefits packages of academic staff and general staff. The proportion of the general staff salaries that are affected by COLAs as defined by the University of California are increased accordingly each fiscal year. The merit increases of academic staff are not accommodated in any state increase and is met by the general fundraising activities. Thus, the salary allocated in the state funds for academic payroll is not sufficient to meet actual expenses.

The COLAs for general staff are automatically adjusted each year but to

request for an increase in the state allocation for on-going or new activities, a Budget Change Proposal (BCP) is required. As MESA is an intersegmental program, a BCP must be submitted to the Intersegmental Budgetary Task Force (IBTF). The Legislature created the IBTF to prevent the duplication of funding of budget line items of intersegmental programs. Prior to the creation of IBTF, it was common for intersegmental programs to request monies for one activity from different segments as a form of "hedging" of their fundraising activities.

During fiscal year 1986-87, a BCP was submitted to the IBTF to augment the budget for current and additional pre-college activities. The IBTF committee reviewed all the requests from the various intersegmental agencies for additional monies. Along with several other intersegmental programs, MESA was recommended to be funded for its BCP request. The segments that were recommended to fund MESA did fund MESA due to their lack of funds. In fact, none of the intersegmental agencies that received the recommendation to be funded was funded.

During fiscal year 1987-88, another BCP was submitted to the IBTF; this time for \$500,000. This additional money was to be used to add new MEP centers and to upgrade funding for current MEP centers. The IBTF decided that MEP is not an intersegmental program and advanced the proposal to the UC and CSU systemwide offices. They discussed the proposed additional funding and agreed to divide the \$500,000 into two equal pieces. The UC and CSU system would each provide the additional \$250,000 directly to MESA Statewide as an augmentation to the MESA budget for MEP activities. However, UC later reduced their augmentation to \$100,000. The CSU system then decided not to provide its \$250,000 directly to Statewide as it might be used to fund UC MEP centers. Instead, that \$250,000 would be sent to CSU MEP centers directly as directed by the Statewide office. Using this procedure, Statewide defined the division of the \$250,000 to be funded to the CSU MEP centers and in the process, also saved the normal development-related fees imposed by the UC Berkeley Development office.

Over the past five years, MESA has submitted two BCPs to the IBTF. The BCP that was reviewed and recommended by the IBTF was not funded and the BCP that was taken out of the IBTF and reviewed by the four-year university segment was. The revenue trend of MESA is that a higher proportion of the annual operating budget is being satisfied by development efforts from the private sector than it was five years ago with respect to the proportion contributed by state funds. To keep up with the pace of inflation and also fund new activities, MESA is still determining the best process to increase the state allocation in real, and not just apparent, terms.

## Future Direction of MESA

California is leading the country in its demographic shift whereby Caucasians will be the minority group and the ethnic groups will constitute the majority in the state. The target population of MESA's services, as a proportion of the school-going population of the state, will increase dramatically. As this shift develops, MESA will re-structure and position itself to accommodate the needs of California's new demographic composition.

Increasing the availability of MESA services to a greater number of students will entail a significant expansion of the organization. MESA will develop its expansion program per the specifications of the Chacon bill (AB 3237) which expresses the expansion of pre-college MESA services into schools with an underrepresented student population of at least forty percent. However, MESA will restrict this expansion with respect to a reasonable geographic proximity to an existing MESA center which is normally located on a university campus. If there are enough students or schools in an area where a MESA center does not exist, a feasibility study will be conducted on the creation of a new MESA center to serve that area.

The thrust of the expansion will be at the middle and junior high school levels. Those schools that feed MESA's target student population into MESA high schools will be the initial focus of expansion. This will probably increase the number of junior and senior high schools served by MESA from a current level of 220 to about 1,500. Soon after the start of the expansion at the junior high level, expansion will commence at the elementary school level. Again, the expansion will be focused on elementary schools that feed students into MESA middle and junior high schools. This level of expansion will probably increase the number of elementary schools served by an additional 1,200. Thus, this will complete the K-12 pipeline of providing MESA services to students from MESA's target student population.

At the post-secondary level, MESA will expand its services into community colleges. MESA high school graduates who do not qualify for or enroll into 4-year institutions would enter a community college and have a MEP support program to assist them in completing their lower-division requirements. They will then continue their studies at a 4-year institution and complete their upper-division courses. The community colleges will work in conjunction with an MEP program located at a 4-year institution to ensure a smooth transition for students from community college to university and therefore graduate. The future direction of MESA is to expand its services to the lower-grade levels and the community college segment in order to further increase the possibility of historically underrepresented students to attain 4-year university degrees in engineering and other math-based fields.

## Update of Displays

Display 1 - unchanged

Display 2 -

73 school districts; 12 CSU campuses; 2 UC campuses; 4 independent institutions; and 2 community colleges in 20 project centers.

### Resources

State	\$ 1,514,229
Institutional	\$ 304,905
Private	\$ 350,219
Total	\$ 2,169,353

Display 3 - Prepared by CPEC

Display 4

Number of students	8,919
Grade less than 7	10.37%
7th grade	13.73
8th grade	16.16
9th grade	14.80
10th grade	20.01
11th grade	18.71
12th grade	6.21
Male	43.72%
Female	56.28
African American	35.53%
Native American	4.33
Mexican American	60.04
Elem Schools	30
Jr Hi Schools	95
Sr Hi Schools	125
Elementary Students	780 (8.75%)
Junior High Students	3,194 (35.81%)
Senior High Students	4,945 (55.44%)
Household income	\$34,978

# *Appendix I*

## **THE CALIFORNIA MIDDLE COLLEGE HIGH SCHOOLS: SECOND EXTERNAL EVALUATION REPORT TO THE CHANCELLOR'S OFFICE**

Submitted to:  
California Postsecondary Education Commission  
1020 Twelfth Street  
Sacramento, CA

Submitted by:  
Office of the Chancellor  
California Community Colleges  
Transfer and General Education Division

## I. THE MIDDLE COLLEGE HIGH SCHOOL CONCEPT

In California, approximately one third of students who start the ninth grade of high school drop out before receiving a diploma. This high rate of school dropouts is being viewed with alarm by state and local education officials. Consequently, there is an ongoing search for school operation program models that show promise for retaining students through graduation and state officials are willing to devote resources to the implementation of successful programs

A very promising model for increasing the retention of students at-risk of dropping out is the Middle-College. Middle College is a high school located on and integrated into a community college. This model has proven successful at retaining at-risk students to graduation and sending them on to college, that the Ford Foundation is providing funds to support its replication across the country

In 1988, the California State Legislature provided funds for the planning and development of two Middle College projects in California. These projects, one at Contra Costa College in northern California and one at Los Angeles Southwest College in southern California, are being developed through the cooperative efforts of two California community colleges and two local high schools districts. The Middle College instructional programs provide flexible pacing, broad curriculum options and a career preparation emphasis with required internships. In addition the programs provide for increased personal attention through small classes and low student-to-staff ratios and the benefits of the maturing effects which a college environment provides.

## II SUMMARY OF FINDINGS

.. the ultimate success of the California MCHS's won't be known until .after they have graduated their first several classes.

This summary is based on the second report in a series of three external evaluation reports on California's two MCHSs. The first report assessed the development of California MCHSs from their early planning stages to the end of their first operational year in 1989-90. This report assesses the development and outcomes of the MCHSs to the end of their second year of operation in 1990-91. While this report describes and assesses several indicators of success, the ultimate success of the California MCHSs won't be known until after they have graduated their first several classes. Only then can dropout and college going rates be determined

and compared with baseline data. Since LA Southwest MCHS started with a single 9th grade class in 1989-90, the first graduation of students will not occur until June, 1993. In the meantime, other indicators of success are being evaluated, such as student performance, behavior, and satisfaction while at MCHS. In addition, this report assesses the replication of the college/school district partnerships or improvements upon the original MCHS model.

One of the critical factors facing California's two MCHS projects during the 1990-91 school year was the severe financial conditions encountered by three of the four school/college districts involved. Facing insolvency, the Richmond Unified School District received a special loan from the California State legislature in the 1990-91 school year in order to allow the district to continue operations for the full school year. The Los Angeles Unified School District, facing similar financial constraints, reduced all certificated and classified personnel salaries by 4.5%. Los Angeles Community College District received a portion of a \$10.0 million special appropriation from the California State legislature because of its fiscal conditions. As a direct result of this, both MCHSs relied significantly on the MCHS grant to cover the costs for services which were cut back by the districts. Regardless, the two projects managed to function adequately during the school year which resulted in significant progress in implementing the model.

#### A RELATIONSHIPS BETWEEN COLLEGE/SCHOOL DISTRICTS

The sense is that MCHS staff and student morale is substantially more positive! It is one of opportunity and achievement rather than remediation and reclamation!

##### Contra Costa College MCHS

The relationship between Contra Costa College and the Richmond Unified School District (RUSD) remains very supportive of the MCHS program. RUSD's commitment to the MCHS project is from the top to bottom, that is from the Board and central district administration to the teaching faculty. Given the fiscal constraints faced by the district, the morale continued to be high throughout the year. The sense is that MCHS staff and student morale is substantially more positive! It is one of opportunity and achievement rather than remediation and reclamation!

### Los Angeles Southwest College MCHS

The LA Southwest College faculty has involved itself more with the Middle College High School this past year. The College supports the MCHS by enabling its students to take college classes, it has also provided three classes taught exclusively for MCHS students. Several courses have been designed especially for MCHS students including anthropology, theater, and art. This is a collaborative effort which benefits both the college and the MCHS. The college receives ADA for these courses while the classroom size for the MCHS is reduced, which currently is well above the 12:1 MCHS model ratio. In addition the Physical Education department at LA Southwest is helping the MCHS set up a sports program.

The Los Angeles Unified School District representatives reports this year that the District Board continues to be very supportive of the Options Program of which MCHS is a part. However a major concern this year, brought about by the districts' financial condition, is the district's requirement that Middle College meet certain "norms" in order to retain its funding. The "norms" essentially require that MCHS must maintain a 35:1 student to staff ratio. This is the same norm which applies to the regular high schools although other LAUSD Options alternative schools are only required to maintain at least a 20 to one and in some cases a 15 to one ratio.

Maintaining a 35 to one ration is a great constraint on implementing the MCHS design. The LAUSD "norming" requirement puts a great deal of pressure on the MCHS to enroll its students in college classes as its chief, if not only, means to reduce its own class size. In addition, this year the MCHS suffered from a lack of, or late arrival of, textbooks. This was reported to be part of the LAUSD's ongoing inability to supply the MCHS with appropriate office and classroom equipment and supplies.

### **B STAFFING, RELATIONSHIPS, AND PROFESSIONAL DEVELOPMENT**

#### Contra Costa College MCHS

The fiscal crisis faced by Richmond Unified, which resulted in staff layoffs and redirections, directly impacted the Contra Costa MCHS. There was a complete staff turnover at the MCHS in Richmond, except for three teachers. This occurred when the RUSD MCHS doubled in enrollments this year in comparison to last year's enrollments. However, the student staff ratio was still only about 12:1, and the MCHS class size, at an average of 20:1, were still substantially smaller than corresponding regular high school classes.

Because of appropriate planning, teachers expressed the view that the increase in class size did not significantly impact classroom activities or learning.

#### Los Angeles Southwest College MCHS

The Los Angeles Southwest MCHS opened its 1990-91 academic year with 205 students and eleven staff. Class size increased substantially from the prior year when the student to teacher ratio increased from 17:1 to 29:1. In 1990-91, class size ranged from 22 to 35. The teachers expressed concern that the increase in class size has made it very difficult to be effective. This is especially the case when classes exceed 25 students, given the special needs and characteristics of MCHS students. The relationships among LA Southwest MCHS staff are quite strong and their morale is high. The principal continues to provide strong and dynamic leadership and the staff is committed to the MCHS concept and to the school.

#### C STUDENT SELECTION AND BEHAVIOR

##### Contra Costa College MCHS

As noted before the impact of staff layoff and redirections, brought on because of the district's fiscal crisis, had a drastic impact on the MCHS students. The MCHS teachers reported that the reaction of returning students to staff turnovers negatively affected their attendance and performance. Students expressed a concern over the lack of African American staff among the new MCHS staff. The principal has responded to this student concern by involving African American faculty from the Contra Costa college faculty in several of the MCHS activities. In addition the new internship coordinator which was hired is African American.

##### Los Angeles Southwest College MCHS

The LA Southwest MCHS is located in an area of Los Angeles where violent crime is among the highest in the United States. Just last year there were six homicides among MCHS students' families. Given the odds of survival among the youth in this neighborhood of Los Angeles, there is a sense among the teachers that the new students have a better demeanor than the returning students. Among the new class of students are some real academic "winners". The MCHS students have a great deal of trouble maintaining their attention when conventional methods of instruction, such as lecture, are used. Consequently, the teachers have been working hard to develop curriculum content and use methods that actively involve each student during a class and that

There have been six homicides among LA Southwest MCHS students families this year

maintains their interest. Besides the shift in pedagogy, the school has tried other things such as detention for absences and tardies. They found that negative consequences didn't work well and have shifted to an incentive program where good behavior and attendance are rewarded with points that add up to earn awards such as a "walkman" radio or a harbor cruise. The MCHS staff are working to identify additional college faculty that will devote classroom and non-classroom time to get to know the students personally. The staff speaks of MCHS as a safe harbor for students, noting that some students don't even have a home they can return to after school. Many parents have reported to teachers that their child is attending school far more often and achieving much more than he or she has in the previous years.

#### D. CURRICULUM, "HOUSE" AND TUTORING

##### Contra Costa College MCHS

The improvement in the curriculum developed for this years MCHS exemplifies the improvement in cooperative relationship between the college and the MCHS. Arrangements have been made with the college for the MCHS students to take college P.E. classes on Tuesday mornings. MCHS teachers offer World History (9th grade) and Economics (10th), English 1 and 2, Biology (9th) and collaboratively, Natural Science, Algebra A (9th), Algebra 1 (9th), and Geometry (10th) and Spanish 1A and 1B. Although there is no organized tutoring program at Contra Cost MCHS, three students have taken advantage of the college's tutoring program.

##### Los Angeles Southwest College MCHS

The LA Southwest MCHS offers the standard array of college prep classes. More than 25% of the students are taking one or more college classes including anthropology, theater, art, English, math and computer science courses. The MCHS teachers are attempting many collaborative arrangements among themselves and with college faculty to improve teaching method and to increase student interest in the courses. However, teachers have noted that collaborative efforts take a significant amount of time to plan and implement. One barrier to developing collaborative arrangements with the college faculty arises from the small number of full-time instructors in many of its departments. Los Angeles Southwest College has a significant number of part-time faculty on payroll.

#### E. INTERNSHIP PROGRAM

##### Contra Costa College MCHS

The MCHS at Contra Costa recently hired a person as the internship coordinator at 40% time. In the first offering of an internship component, 14 Contra Costa MCHS students have been placed in a one day per week internship. The goal is for internship positions to provide students an opportunity to learn some job skills and perhaps encourage the sponsor to employ the student later and support their attendance in college.

The internship program at Contra Costa College is not yet fully organized and requires further development to have the effect intended by the MCHS model. Currently, teachers know very little about the program or which of the students are involved in the internship program.

##### Los Angeles Southwest College MCHS

The internship component at LA Southwest MCHS calls for cohorts of 50-70 students to rotate through three day per week internship placements every 10 weeks. Students would attend MCHS classes in the morning then leave for their internship placement from school in the afternoon. This arrangement is designed to maintain school attendance high and complete the internship requirement as well. All students would be required to take the Personal and Career Development class prior to their placement.

#### III. FUTURE DIRECTIONS

At this point in time it is too early to tell whether the Middle College High Schools at LA Southwest College and Contra Costa College are a success. However, it is clear that a meritorious effort has gone into the development and implementation of the programs to assure their success. The ultimate success of the California MCHSs won't be known until after the first several classes have graduated.

Although this year has been difficult for the programs, the examples set by the staff of the Middle College High School, a kind of moral excellence, has been an inspiration. The lessons learned this year are exemplified in the following words, "Virtue comes from the struggles encountered along the journey, not from the victory!"

At this juncture, it is critical to continue to support and advocate for the Middle College's success! The Chancellor's Office staff will work with the projects to strengthen the

components to assure replication of the MCHS model. We will work to implement the tutorial components or arrange for some alternatives with the college to establish critical intervention strategies for MCHS students by the end of this year. In addition we will work with the MCHS staff to strengthen the effectiveness of the internship components and fully implement them by the end of the year. This is necessary since this component provides a critical transition for many students from the MCHS campus to the working world.

Another area of involvement for the Chancellor's Office will be to work with the Statewide Academic Senate and the local academic senates to improve Community College faculty involvement in these projects. The Community College faculty can make a wealth of resources available to the MCHS staff through staff development projects. We would like to see further sharing of ideas and resources between these two groups.

Finally, a concrete effort must be undertaken to improve the cooperation between the entities involved, in particular Los Angeles Unified School District and Los Angeles Community College District. Although we have reported an improvement in the cooperation between the MCHS, the host colleges and the central district administrations, as in the case of Richmond Unified School District, in our assessment this

has not been the case between LAUSD and LACCD. The Chancellor's Office staff will explore ways with LAUSD officials to minimize the effects of the "norming" requirement or work directly with legislative staff to address this matter through the legislative process. In closure, this was a critical year for the programs. This year, 1991-92, will be the year for the Middle College High School's to show that they work and are worthy of continued funding and ultimately replication across the State. The proposed 1992-93 Governor's Budget provides \$ 3 million for the final year of appropriations for the Middle College High Schools. Although the MCHS programs survived the during Richmond and Los Angeles Unified school districts' worst fiscal crisis ever, the fiscal condition of the districts will have a long term impact on the overall success of the two projects.

U:mchspec.doc

## Display 1

Program Impetus	Replication of the successful model of Middle College High School developed and implemented by La Guardia Community College in New York (1988).
Program Mission	Reduce the number of high-risk students with college potential who leave secondary school without a diploma.
Program Strategies to Fulfill Mission	Through contribution from both participants, the college merges strengths from both institutions by its location on a community college campus with instruction by school district faculty.
Program Structure	The structure at each site will be a replica of the La Guardia Model.
Duration at School <u>Site</u>	Continuous.
Potential Length of Time with <u>Student</u>	Three to four years.

## Display 2

Administrative <u>Agency</u>	California Community Colleges Chancellor's Office
Institutional Participants	2 School Districts: o Los Angeles Unified School District o Richmond Unified School District  2 Community Colleges: o Los Angeles Southwest College o Contra Costa College
<u>Program</u> Objectives	To increase the number of high risk students who earn high school diplomas.  To increase the number of high risk students who attend college.

<u>Service</u>	Career Internship experience
<u>Components</u>	Innovative Classroom Instruction
	Personal/Academic/Career Counseling
	Tutoring
	Staff Development

<u>Resources</u>	
State	\$310,000 1990-91 Fiscal Year
Institutional	0
Private	0
Total	\$310,000

#### Display 4

<u>Criteria for</u> <u>Student Selection</u>	Students with a history of truancy, low academic achievement, and counselor recommendation
-------------------------------------------------	--------------------------------------------------------------------------------------------

<u>Definition of</u> <u>"Served" Student</u>	Students who are enrolled at Middle College High School
-------------------------------------------------	---------------------------------------------------------

<u>Number of</u> <u>Students</u>	1990-91 308
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<u>Grade Level</u>	1990-91
Below Seventh	0%
Seventh	0%
Eighth	0%
Ninth	15%
Tenth	60%
Eleventh	25%
Twelfth	0%

<u>Racial Ethnic</u> <u>Background</u>	
Asian	1%
African American	63%
Latino	28%
Native American	0%
White	8%
Other	0%

<u>Gender</u>	1990-91
Male	44%
Female	56%

<u>Socioeconomic</u> <u>Status of</u> <u>Household</u>	\$30,638
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# References

- California Postsecondary Education Commission  
*Evaluation of the California Student Opportunity and Access Program (Cal-SOAP) A Report to the Legislature and Governor in Response to Senate Bill 800 (Chapter 1199, Statutes of 1983)* Commission Report 87-43 Sacramento The Commission, December 1988
- *Evaluation of the California Academic Partnership Program (CAPP) A Report to the Legislature in Response to Assembly Bill 2398 (Chapter 620, Statutes of 1984)* Commission Report 88-13 Sacramento The Commission, March 1988
- *The Role of the Commission in Achieving Educational Equity A Declaration of Policy* Commission Report 88-42 Sacramento The Commission, December 1988
- *Prospectus for an Evaluation of Intersegmental Student Preparation Programs* Commission Agenda Item 11, December 1988
- *The Effectiveness of the Mathematics, Engineering, Science Achievement (MESA) Program's Administrative and Policy-Making Processes A Report to the Legislature in Response to Assembly Bill 610 (1985)* Commission Report 89-4 Sacramento The Commission, January 1989
- *First Progress Report on the Effectiveness of Intersegmental Student Preparation Programs One of Three Reports to the Legislature in Response to Item 6420-0011-001 of the 1988-89 Budget Act* Commission Report 89-29 Sacramento The Commission, October 1989
- *Evaluation of the Junior MESA Program A Report to the Legislature in Response to Assembly Bill 610 (Hughes) Of 1985* Commission Report 89-30 Sacramento The Commission, October 1989
- *Second Progress Report on the Effectiveness of Intersegmental Student Preparation Programs The Second of Three Reports to the Legislature in Response to Item 6420 -0011-001 of the 1988-89 Budget Act* Commission Report 90-22, October 1990
- Galligan, Dennis J *Effective Relationships for School/College Partnerships, 1984-87* Long Beach Office of the Chancellor, The California State University, 1990a
- Galligan, Dennis J *Achieving Academic Excellence Through School/College Partnerships,, 1987-90* Long Beach Office of the Chancellor, The California State University, 1990b